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A Reference Supplement to the Report of the Second Bilingual Districts Advisory Board



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D.G. Cartwright

LANGUAGE ZONES IN CANADA

A Reference Supplement to
the Report of the Second
Bilingual Districts Advisory Board



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FOREWORD

Within this reference supplement to the Report of the second Bilingual Districts Advisory Board no attempt can be made to give a full and equal presentation of the distribution of the two official language populations in Canada. Time and space have placed a constraint upon a balanced treatment of language data for the entire country.

Since the main purpose of this volume is to present some of the data that were used by the members of the Board in drafting their recommendations, it will be highly descriptive. On the other hand, to provide a conceptual framework within which this data may be manipulated, the country has been divided into a number of language zones. Hence, the presentation of the material used by the members is heuristic, in that language communities are treated by zones rather than province by province.

Although the members of the Board devoted a considerable amount of time to discussing the situation of the English mother-tongue minorities within Quebec, much of their efforts was devoted to the analysis of trends within the French mother-tongue communities beyond Quebec. This volume reflects an apparent overbalance, in that similar emphasis is placed upon the latter communities.

In Chapters III through V of the supplement the language zone concept is applied to the Atlantic region of Canada alone because there was not time to do a complete analysis for the entire country. Although similar treatment was provided for various regions of Canada, the presentation of only one will serve to illustrate the methodology applied to the two

official language populations. The Atlantic provinces serve the purpose well in that they possess all the characteristics of the language zones of Canada. They contain a French and an English language zone, a bilingual zone and language islands.

If, in addition to the descriptive feature of this volume, certain questions are generated through the language zone concept that will stimulate further research, the study will have served as a useful adjunct to the Report of the Bilingual Districts Advisory Board.

Sincere appreciation is extended to Mr. Maurice
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D.G. Cartwright Ottawa, Canada, 1975

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Chapter I

INTRODUCTION

A language zone does not end abruptly but can grade gently into the next zone. Consequently it is appropriate to speak of a frontier between zones rather than a boundary as between provinces. One advantage of eliminating provincial boundaries, at least conceptually, is to permit an identification of such frontiers between these zones.

Language frontiers have been developing in Canada since the British and French settlements of the seventeenth century gradually attained permanence along the eastern seaboard and in the valley of the St. Lawrence. During the eighteenth and nineteenth centuries, frontiers of separation eventually became frontiers of contact for the two ethnic groups and biculturalism and bilingualism emerged as a cultural feature of a colonial territory.

An overview of this cultural contact will be presented in this chapter of the reference supplement to provide an understanding of some of the processes that were involved in the evolution of cultural contact and to provide a basis for the concept of language zones in Canada. An application of the concept and examination of certain cultural features of the various language zones will be applied to the Atlantic region of Canada in the latter chapters of the supplement.

French Settlements in Canada: An Overview

The process and pattern of French settlement throughout the St. Lawrence Lowlands, during the seventeenth and eighteenth centuries, are familiar to most Canadians. The French parishes that evolved throughout this lowland region are generally considered to be the heartland of French culture in North America. A second core area, that of the Acadians of maritime Canada, was subjected to forced dispersion between 1755 and 1760 and these people of French origin were compelled to seek new sites for settlement or move to more isolated locations and, thereby, reinforce sequestered fishing settlements.

While the Acadian population was readjusting and developing its maritime life-style during the early decades of the nineteenth century, the Canadians of the lower St. Lawrence were approaching the limits of settlement within their riverine environment. To the north of the river, the Laurentide was rejected as a habitat suited only to the Indian and the animals of the forest; it was a land that was wild and uninhabitable with a harsh and unhealthy climate¹. It would take many years for the members of the colonization societies to break this attitude toward the Laurentide and to penetrate the northern valleys of Quebec.

To the east, the townships beyond seigheurial lands were organized after the Conquest (1763) under a land grant system of free and common soccage that was strange to the habitant. Furthermore, large grants of land were made to Anglophone land-owners, many of them loyalists and many absentee². Colonization roads to open these new lands

^{1.} Buies, A., <u>L'Outaouais Supérieur</u>, Darveau, imprimé Quebec, 1891, p. 16/17.

Langlier, P.C., List of Lands Granted by the Crown in the Province of Quebec, 1763-1890, Queen's Printer, Public Archives of Canada, Ottawa, vol. III, 1891.

beyond the valley were few and low on the priorities of the colonial government. To penetrate these "waste lands" and to colonize them with French Canadian settlers from the crowded parishes became a policy of high priority for several Bishops of Montreal and a programme that occupied their energies for decades³.

By 1840, the combination of land scarcity, declining agricultural yields and periodic crop losses through the incidence of wheat midge forced the young <u>Québecois</u> to leave his parish. A slow rate of industrial development in Montreal and in Quebec and a timber industry that was suffering the vagaries of external market fluctuations, could not absorb all surplus labour from the land and many were forced to look elsewhere for employment. Toward the middle of the nineteenth century news of cash incomes through employment in New England presented a temptation to this young surplus population and, after a few of the more adventurous had made the break from the core area of French Canada, others followed.

Labour demands associated with a burgeoning textile industry in southern New England tempted settlers away even from newly colonized land in the Eastern Townships.

As road and rail communications between Quebec and New

Mandements, Lettres Pastorales et Circulaires des Evêques de Québec, Mandement of Bishop Bourget, 12 juin, 1848, Montreal, vol. I, p. 475, Archdiocesan Archives, Montreal. See also Circulaire au Clergé du Québec, 11 août, 1848, Quebec, vol. III, p. 521. See also, Blanchard, R. "Les Cantons de l'Est", Revue de Géographie Alpine, tome XXV, Grenoble, 1937 and Caron, Abbé Ivanhoe, La Colonisation dans la Province de Québec, les Cantons de l'Est, 1791-1815, l'Action nationale, Québec, 1927.

^{4.} Vicero, R.D., Immigration of French Canadians to New England, 1840-1900: A Geographical Analysis, unpublished Ph. D. thesis, University of Wisconsin, 1968.

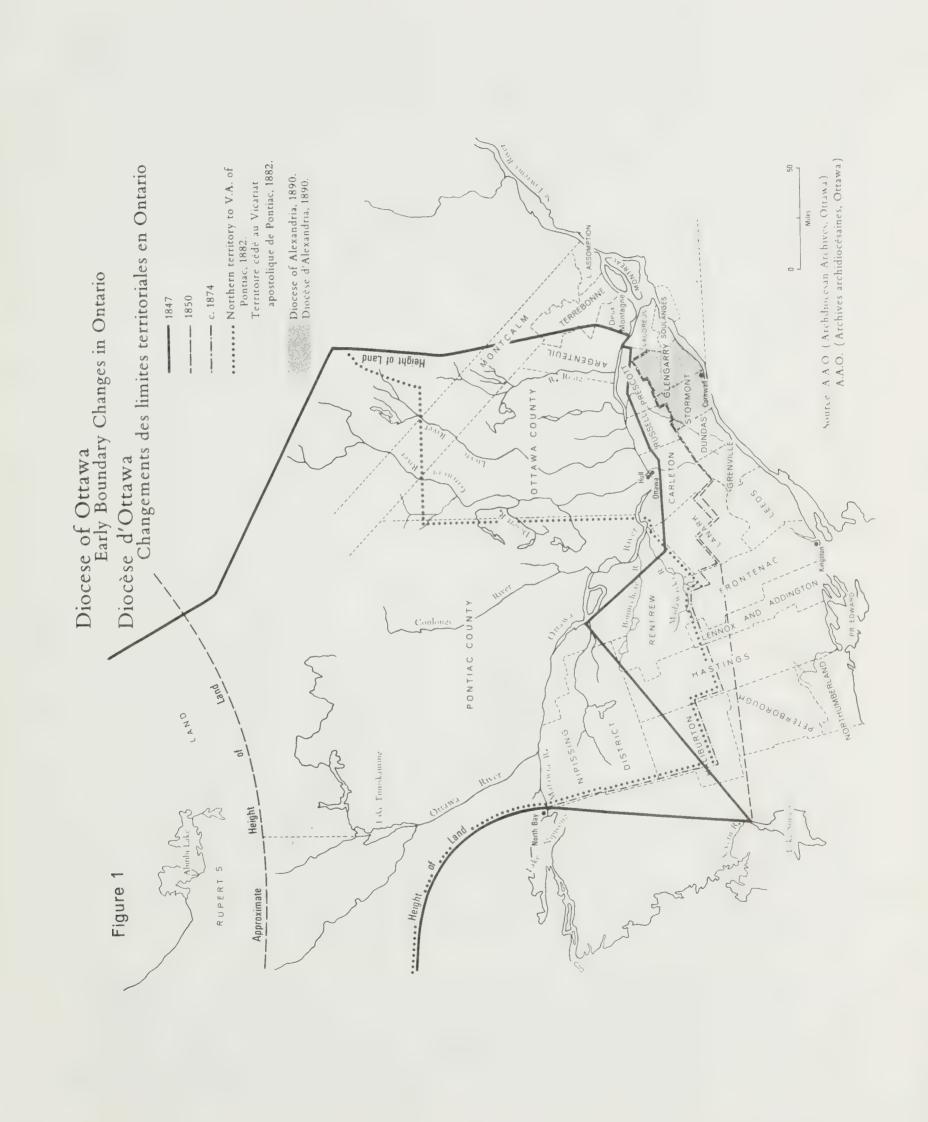
England improved, during the 1850's and 1860's, the accessibility of this labour market increased and the exodus intensified⁵. Mill owners, anxious to supplement the loss of employees during the American Civil War, solicited French families to take advantage of opportunities in New England. Recruiters were paid a dollar per head for each female hired. Transportation was paid and later, as the railway companies entered the practice of encouraging families to move to New England, ticket-sellers in Quebec were paid fifty cents per head for each passage sold⁶. It has been estimated that by the turn of the century more than half a million French Canadians had emigrated to New England⁷.

From the outset the Catholic clergy of Quebec responded vehemently to the decisions of the young to move to the United States. The loss of young men and families was a disruptive influence on agricultural production that was based upon familial self-sufficiency. The social patterns of the parish were altered and the traditional structure of the joint family was threatened. The decision by the hierarchy of the church to become actively involved in the colonization of Quebec, and beyond the core area of the St. Lawrence Lowlands, was an attempt to relieve this stress upon the social system. If the clergy could present an alternative solution to the habitant, the system could be put back into its symmetrical form and the traditional life style perpetuated. Church-sponsored programmes of colonization were intended to accommodate families that were confined

Journals of the Legislative Assembly of Province of Canada, "Report of the Select Committee on the Causes and Importance of the Emigration from Lower Canada to the United States", Appendix AAAAA, 1849.

^{6.} Vicero, R.D. op. cit.

^{7.} Vicero, R.D. op. cit.





within the crowded parishes of the seigneuries, to redirect the young people of Lower Canada from the temptations of salaried employment in the United States, and to offer to those French Canadians who had already emigrated an opportunity to return and to resume their pastoral life. It was a programme that was to be both nationally and religiously significant for it would sustain the major ingredients of French Canadian culture—language and religion⁸.

Through negotiations with the Roman Catholic hierarchy of Ontario, the extensive missionary work of the Oblate Fathers throughout the Ottawa Valley, and careful timing in requests forwarded to Rome, the hierarchy of Quebec was successful in extending its ecclesiastic territorial organization into eastern and northern Ontario (fig. 1). The diocese of Bytown was erected in 1847 and, as suffragan territory to the Archdiocese of Quebec, the new diocese became an integral part of the colonization programme of the hierarchy of French Canada. With the achievement of formal territorial organization, families from the crowded parishes along the St. Lawrence were encouraged by local colonization societies to take up vacant land along the right bank of the Ottawa River and further south in the counties of Russell and Prescott in the present province of Ontario. The location of the mission chapel became an important focal point for French catholic settlers and since many of the newcomers were from the same parish in Quebec the bonds of community were readily established in this frontier territory. In the absence of extensive Anglo-

^{8.} Mandements, Lettres Pastorales et Circulaires des Evêques de Québec, Quebec, 1889, 2 vols., Public Archives of Canada, Ottawa. Mandements, Lettres Pastorales, Circulaires et Autres Documents Publiés dans le Diocèse de Montréal, Montreal, 1871, Public Archives of Canada, Ottawa.

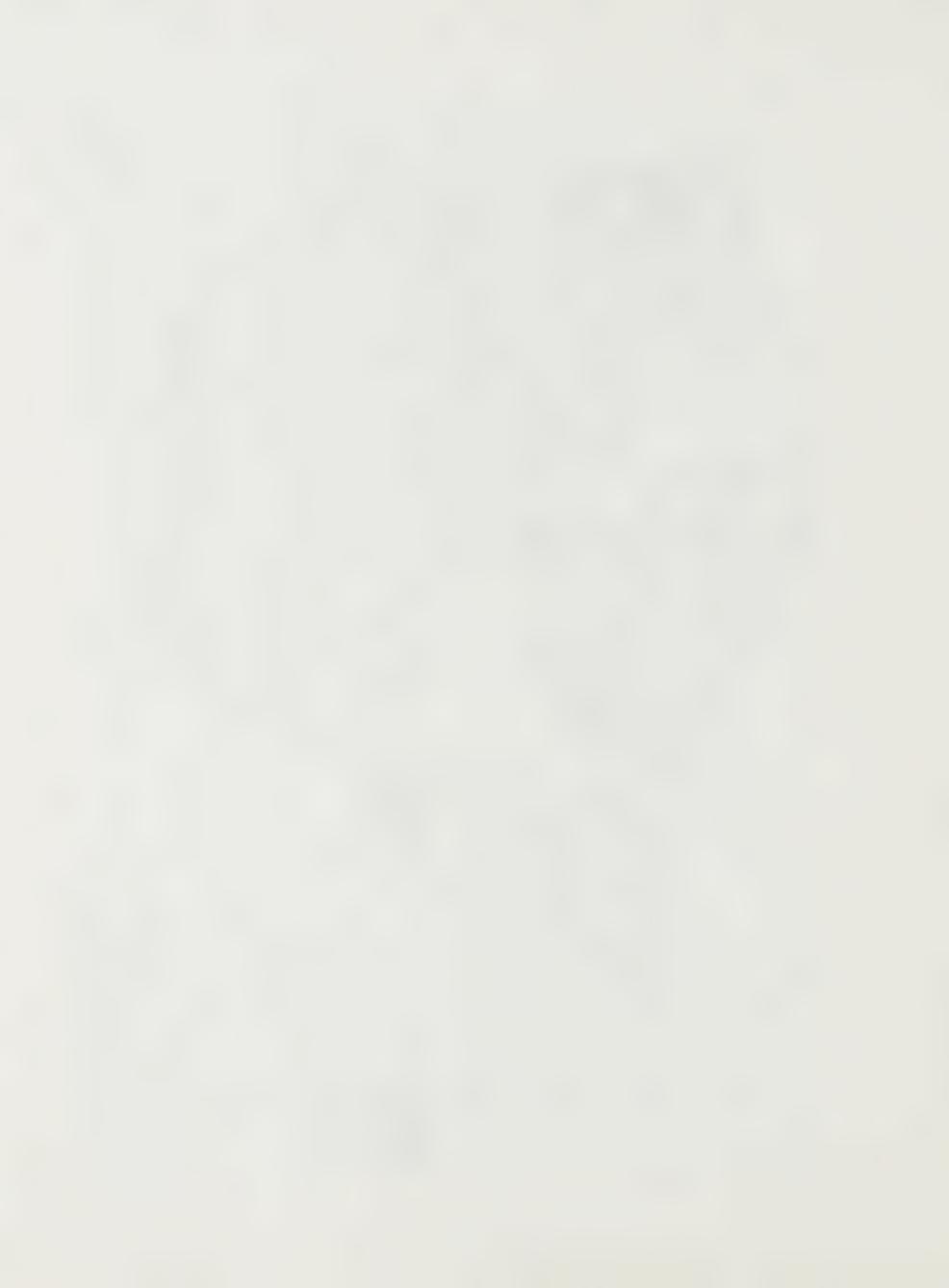
phone settlement, two essential ingredients were transferred to the new location; a priest, and neighbours who were French speaking. Proximity to Quebec facilitated the maintenance of cultural linkages through occasional contacts with friends and relatives in the old parishes (figs. 2 and 3).

To minimize conflict among Catholic settlers in the new dioceses Mgr. Guigues, the first Bishop of Bytown, encouraged Irish Catholics to take up land further up the Ottawa River and settle the counties of Carleton, Lanark and Renfrew. Considerable timber activity had preceded settlement into this part of the valley and the demand for farm produce and seasonal labour provided a ready market and cash income for the diligent colonist. This ethnic pattern predominated during the latter decades of the nineteenth century; French Catholic colonization throughout Pussell and Prescott, and into the tributary valleys of the Rouge, Lièvre and upper Gatineau in the Laurentides, and Irish Catholic settlement on both sides of the upper Ottawa Valley, north of Bytown.

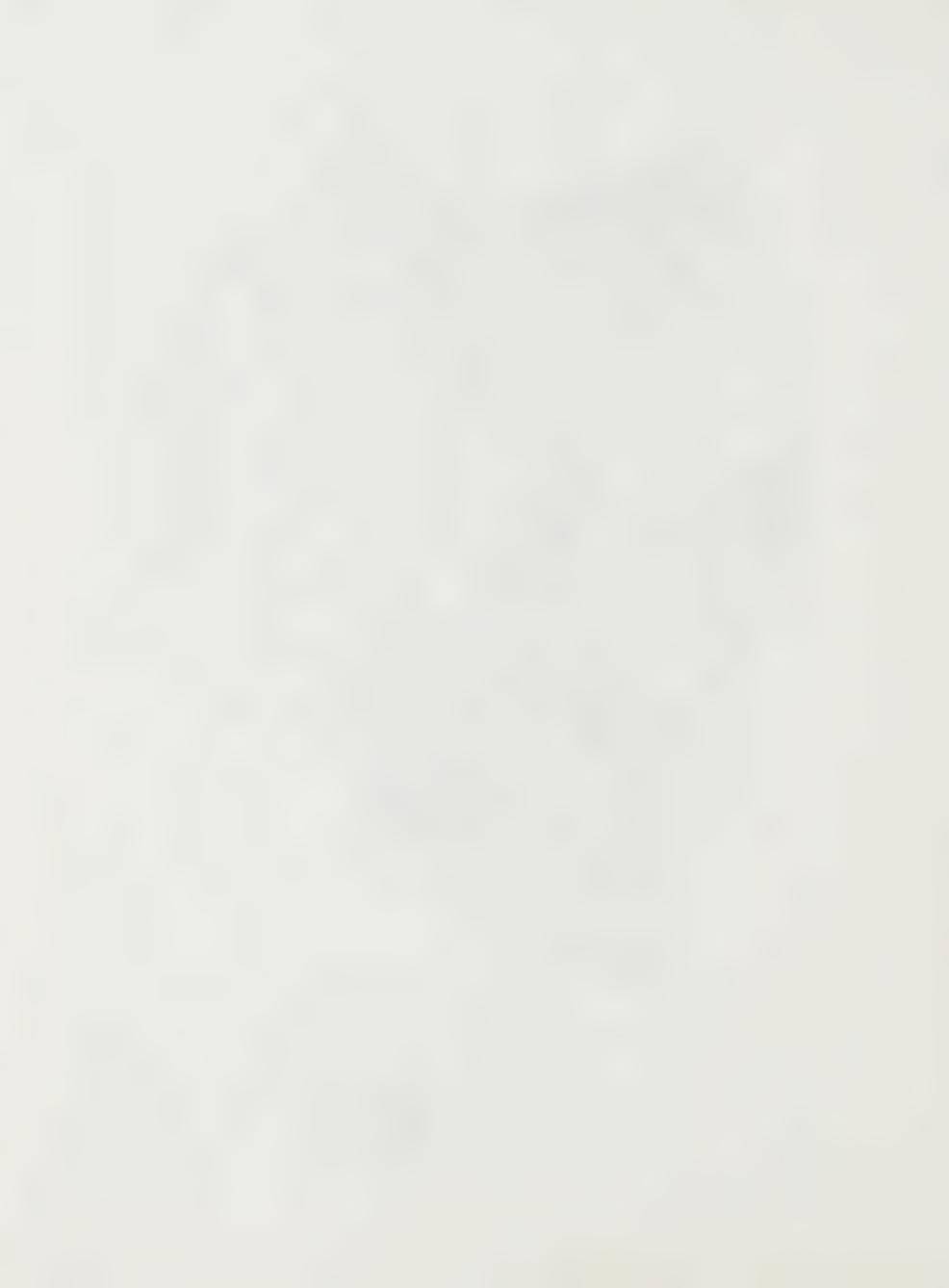
Toward the end of the nineteenth century, as rail-way transportation provided access to the timber stands and mineral deposits beyond the watershed of the Ottawa Valley, French Catholic colonization outside Quebec entered a second phase in Northern Ontario (Nouvel Ontario). There is some evidence that this movement was created not only to satisfy the colonization strategies outlined previously but also to bring about a linkage with French Catholic settlement in the valley of the Red River in Manitoba (fig. 4) 9.

^{9.} Archdiocesan Archives, Ottawa, Father A. Labelle to the bishops of Ouebec: "Elevation to Archdiocese, Ottawa", n.d., file #20.









This thrust followed the route of the Canadian Pacific Railway from North Bay to Sudbury, and, after 1920, via the Canadian National Railway route through Cochrane, Hearst and Long Lac 10 .

Thus, at the outbreak of World War I, two regions of French colonization were active in Eastern and in Northern Ontario. To the west of the province small pockets of French settlers were scattered throughout the prairies as the Canadian west was opened to settlement. Various government schemes encouraged emigrants from the crowded farm lands of eastern Canada and from Furope to exploit the agricultural potential of the West. An example of the role of clerical and lay societies in fostering Francophone settlement within the prairies is the work of Bishop Taché who, with full support of the hierarchy of Quebec, encouraged French colonists from the St. Lawrence to join his burgeoning settlement in the vicinity of St. Boniface.

By the late 1890's the rate of immigration into the prairies accelerated markedly. In less than twenty years the best and most accessible agricultural lands, in the triangle between Winnipeg, Edmonton and the United States boundary, were occupied. Settlers arrived in large and in small groups, took up land in quarter sections and occasionally in specific sections that had been reserved for certain immigrant groups. By 1910 the prairies were a

^{10.} The Canadian National Railways Company was formed in 1920. At the time that the railway through the "clay belt" of northern Quebec and northern Ontario was completed, c. 1913, it was known as the National Transcontinental and was one of the companies taken over by the C.N.R.

cultural mosaic of French and British from eastern North America and Russians, Mennonites, Ukrainians and Germans from Europe¹¹.

Meanwhile, maritime Canada was being settled by a population that was less ethnically heterogeneous than that of the prairies. People of British stock, immigrants from the United Kingdom and Loyalists from the United States, dominated the economic and political life of the maritimes throughout the nineteenth century. The strongest element of French Canadian and Acadian origin found asylum in the northern and eastern regions of the present province of New Brunswick (separated from Nova Scotia in 1784). The county of Madawaska, near the headwaters of the Saint John River, became a refuge area for Acadians who were forced to ascend the valley to avoid conflict with Loyalist settlers in the vicinity of Fredericton. The county was also settled by the Acadian/French Canadian returnees who made the short portage overland from the St. Lawrence Vallev12. To the east, along the south shore of Chaleur Bay, the indented coastline, "... formed a natural rendezvous for these harassed expatriates" 13.

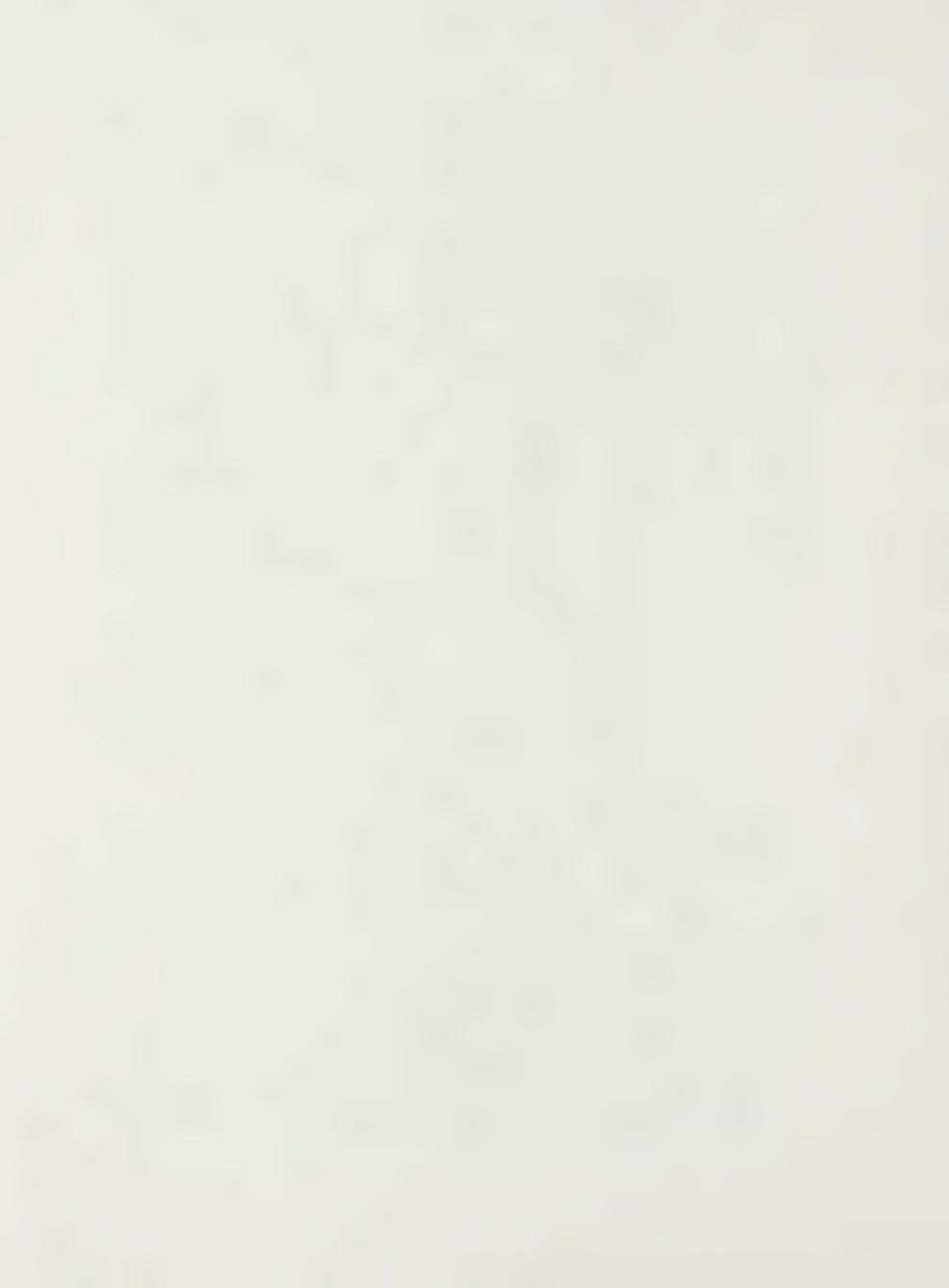
In the last quarter of the nineteenth century, the administrative centres of Halifax and Quebec were remote and the Acadians enjoyed a period of isolation and restoration. Many found shelter along the east coast of New

^{11.} Ironside, R.G. et al., (eds.) Frontier Settlement, The University of Alberta, Studies in Geography, Monograph #1, Edmonton, 1974.

^{12.} Lauvière, E., <u>La Tragédie d'un Peuple</u>, (tome 2^e) Editions Bossard, Paris, 1922.

^{13.} MacNutt, W.S., New Brunswick, A History: 1784-1867, Macmillan of Canada, Toronto, 1963 (p. 6).

Nouvel Ontario 1880-1900 (A.A.O. et A.P.C.) Colonisation Canadienne-française dans le Northern Ontario/Nouvel Ontario Établissement de Saint-Boniface et de la rivière Rouge (canadien-français) 1880's-1900's (A.A.O. and P.A.C.) Movement into Nouvel Ontario French Canadian Colonization Settlement (French Canadian) Limites du bouclier canadien Date of sectional completion St. Boniface and Red River Date d'entrée en service Edge of Canadian Shield Quebec Figure 4 (1957) James Bay Hudson Bay Huron Sault Ste Marie Ontario Sioux Lookout Manitoba Miles



Brunswick between the Baie Verte, near the Isthmus of Chignecto, and the estuary of the Miramichi River, where they were able to minimize contact with their conquerors 14. Beyond New Brunswick, however, the Acadians were scattered among the predominantly British ethnic population of Nova Scotia and Prince Edward Island; peripheral to the mainstream of colonial life but at the same time insulated from contact with their kin and kind in northern New Brunswick and in the heartland of the St. Lawrence Valley 15. This was a geographical situation analogous to the French settlements to the west of Nouvel Ontario.

With the expulsion of the Acadians in the middle of the eighteenth century a hundred and fifty years of persistent social growth was destroyed, and the province (maritimes) was left less like a palimpsest than like a slate that had been wiped clean 16.

At the outbreak of World War I the patterns of French Canadian/Acadian settlement throughout Canada had been established and since that time alterations were internal; one of entrenchment rather than of expansion. The middle St. Lawrence Valley and northwest New Brunswick, roughly from the east end of Montreal to the county of Madawaska, was the linguistic stronghold of the Francophone population of Canada. To the east and west of this "French

^{14.} Thorburn, H.G., Politics in New Brunswick, University of Toronto Press, Toronto, 1961.

^{15.} Rumilly, R., <u>Histoire des Acadiens</u>, (tome II) La Corporation des <u>Editions Fides</u>, <u>Montreal</u>, 1955.

^{16.} Bailley, A.G. "Creative Moments in the Culture of the Maritime Provinces", in <u>Historical Essays on the Atlantic Provinces</u>, G.A. Rawlyk (ed), Carleton Library Series #35, McClelland and Stewart Ltd., Toronto, 1967 (p. 233).

zone" there was a linguistic gradient where the Francophone population experienced diminution, a break in the contiguity of settlements, and increased contact with people of "other" mother tongues, particularly English. There was a gradual progression into linguistic zones that were English-dominant. To the east the population of ethnic origin was strongly British. To the south and west, the ethnic origins were more heterogeneous than in the Atlantic region of Canada but throughout southern Ontario those of British ethnic stock prevailed. Only in the census metropolitan area of Windsor, for example, did the people of British ethnic origin constitute less than half of the total population (48%) in the major urban centres. West of Sudbury the language zone was again English dominant but, as described above, ethnically heterogeneous.

Within these English-language-dominant zones of Atlantic Canada, Southern Ontario and Northern Ontario/the prairies, there were the relic communities of eighteenth and nineteenth century French settlements. In spite of the tenacity with which the people of these language islands attempted to maintain their mother tongue, the distance from the "French zone" of Canada, and the resultant limitation upon contact and interaction, became perceptually greater because of the increase in the use of English among all ethnic groups, particularly in western Canada. prevalent feature of the majority of these communities became that of language transfer as English became the language of the home. Of the population of western Canada that had a mother tongue other than French or English, only 38.8% were using the "other" language in the home in 1971. Among the population of French mother tongue just over half (50.8%) were using French as the language of the home (table 1).

Données sur la langue maternelle, la langue d'usage et la langue officielle, groupes francophones et "autres" dans l'Ouest du Canada, par province, 1971

	"Other" mother tongue population	% of total population	"Other" home language	% of mother tongue population	Official language: "neither"	% of mother tongue population
Provinces	Population "d'autres" langues maternelles	% de la population totale	"Autres" langue d'usage	% de la population de langue maternelle	Langue officielle aucune	% de la spopulation de langue maternelle
Manitoba	264,980	26.8	132,085	8 . 6	20,580	
Alberta	Day No.	19.5	127,220	40.1	11,110	υ. υ.
British Columbia Colombie-Britannique	339,335	15.5	145,990	43.0	26,725	8.9
Total	1,130,470	19.7	483,085	38.8	76,405	6.8
	French mother tongue population	% of total population	French home language	% of mother tongue population	Official language: French only	% of mother tongue
Provinces	Population de langue maternelle française	% de la population totale	Français langue d'usage	% de la population de langue maternelle	Langue officielle Français seulement	% de la : population de langue maternelle
Manitoba	60,545	6.1	39,600	65.4	5,020	80.3
Saskatchewan	31,605	3.4	15,935	50.4	1,825	5.8
Alberta	46,500	2.9	22,695	48.8	3,305	7.1
	38,035	1.7	11,510	30.0	1,775	4.9
Total	176,785	3.1	89,740	50.8	11,925	6.7

[&]quot;Other" : population other than French or English "Autres" : population autre que francophone ou anglophone

Source: Statistics Canada/Statistique Canada, Catalogues 92-773, 92-726.

[&]quot;Neither" : people who speak neither English nor French Aucune : personne qui ne parle ni anglais ni français



11

Chapter II

LANGUAGE ZONES IN CANADA

Regional Concentrations of French "Language Populations" in Canada

The existence of the French language zone, and the buffer zone that is situated between it and the surrounding English language zones, can be described numerically and spatially. The data in Table 2 represented a numerical distribution of the language-related components of the Franco-phone population of Canada. The scale of the distribution was at the level of the province and census divisions; counties, districts and regional municipalities in Ontario and counties in New Brunswick.

Most of these components required little definition or explanation of usage except that of ethnic origin. Some writers have criticized the use of ethnic data related to language growth or decline but much of this criticism was based upon the difficulty of adequately defining ethnic origin and upon the cultural variation that can occur over a period of time for people of a particular ethnic origin. It is significant to recall that language is but one variable of an ethnic population and that there are other cultural features that constitute an ethnic group. In the general introduction of the Report of the Royal Commission on Bilingualism and Biculturalism the commissioners wrestled with the confusion that exists in a multicultural society with this term,

^{1.} Kralt, J. Language in Canada, 1971 Profile Studies Series, volume V, Statistics Canada, Ottawa (in preparation).

...if we must admit that ethnic origin very often exerts a cultural influence on a person whose parents have chosen another language, the fact still remains that this influence cannot be measured, that it varies greatly between different groups and between people, and that no exact rule can be deduced from it. Therefore, without denying the importance of this factor, the Commission, since it must make recommendations based on easily discernible realities, concludes that it must give much more importance to language than to ethnic origin.2

Statistics Canada attempted to minimize the confusion in determining one's ethnic origin by instructing respondents to trace their background "... through the father's side ..." and, as a guide, to use "... language spoken by the person or by his paternal ancestor on first coming to this continent" Consequently, it is the language component of ethnic origin that was significant to this study and the other variables, difficult if not impossible to measure, and subject to change over time, were not considered here. If one may assume that a paternal ancestor could speak his mother tongue, French or English, upon arrival in Canada then it was considered pertinent. This was particularly applicable to a study that was concerned with the official language groups of Canada.

A comparison between Table 2 and Figure 6 demonstrated the spatial features of the regional concentrations of the "French language populations". The presentation of Figure 6 was not only an attempt to provide a cartographic representation of the data provided in Table 2, it also

^{2.} Report of the Royal Commission on Bilingualism and Biculturalism, Book I, General Introduction, "The Official Languages", p. xxiv.

^{3.} Dictionary of the 1971 Census Terms, Catalogue 12-540, Statistics Canada, Ottawa, 1972.

TABLE 2

Regional Concentrations of French "Language Populations" in Canada, by percentage, 1971

TABLEAU 2

Les concentrations régionales de la population francophone canadienne, en pourcentage, 1971

		Ethnic Origin: French Origine ethnique: française	Mother Tongue: French Langue maternelle: française	Home Language: French Français: langue d'usage	Official Language: French only Langue officielle: français seulement	Official Language: Bilingual Langue officielle: français-anglais
Québec ¹		77.0	84.0	87.8	94.6	57.4
Quebec, eastern Ontario, I and northern New Brunswick ²	Québec, Est de l'Ontario et Nord du Nouveau-Brunswick ²	82.2	6°88	92.1	97.6	65.6
Quebec, and Eastern and northern Ontario, and northern and eastern New Brunswick ³	Québec, Est et Nord de 1'Ontario; Nord et Est du Nouveau- Brunswick3	86.3	92.7	96.1	99.1	72.4
Canada		100	100	100	100	100

1. Province of Quebec

2. Province of Quebec and counties of Stormont, Glengarry,
Prescott, Russell and Ottawa-Carleton (regional municipality)
in eastern Ontario. The counties of Madawaska, Restigouche,
Gloucester and Victoria in northern New Brunswick.

3. As above plus: In northern Ontario, Nipissing, Sudbury, Timiskaming and Cochrane. In eastern New Brunswick, Northumberland, Kent and Westmorland.

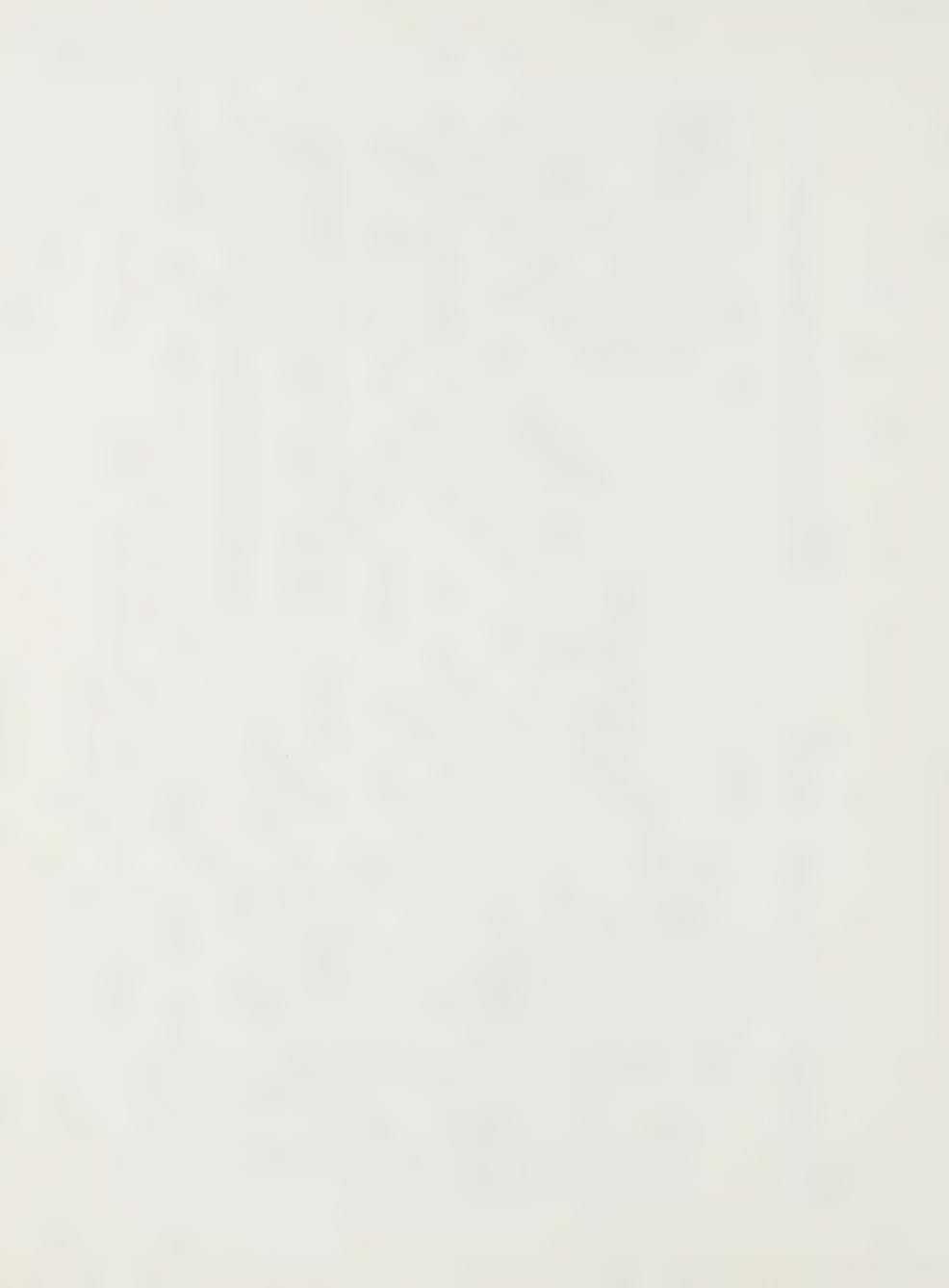
1. Province de Québec

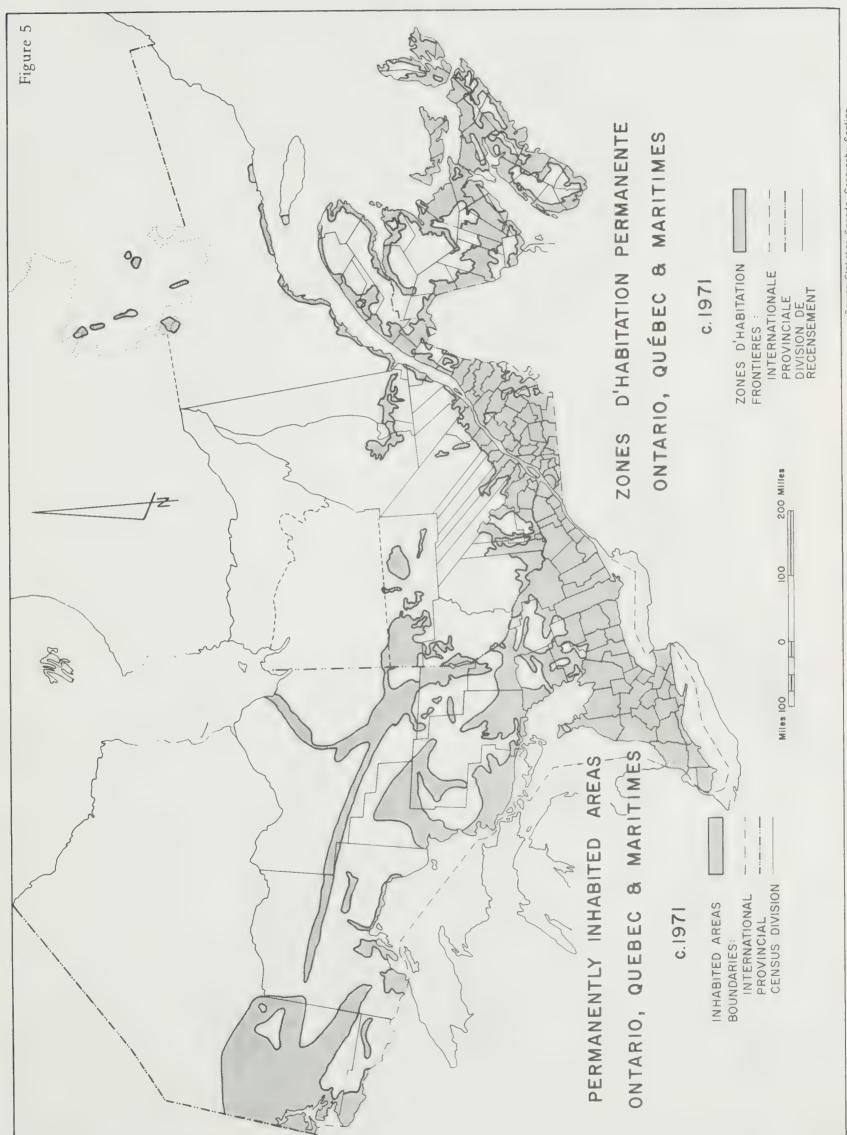
2. Province de Québec et comtés de Stormont, Glengarry, Prescott, Russell et Ottawa-Carleton (municipalité régionale) dans l'Est de l'Ontario. Les comtés de Madawaska, Restigouche, Gloucester et Victoria dans le Nord du Nouveau-Brunswick.

3. Comme ci-dessus, plus: Dans le Nord de l'Ontario: Nipissing, Sudbury, Timiskaming et Cochrane. Dans l'Est du Nouveau-Brunswick, Northumberland, Kent et Westmorland.

Source: Statistics Canada, Catalogues: 92-723, 92-773, 92-726. Source

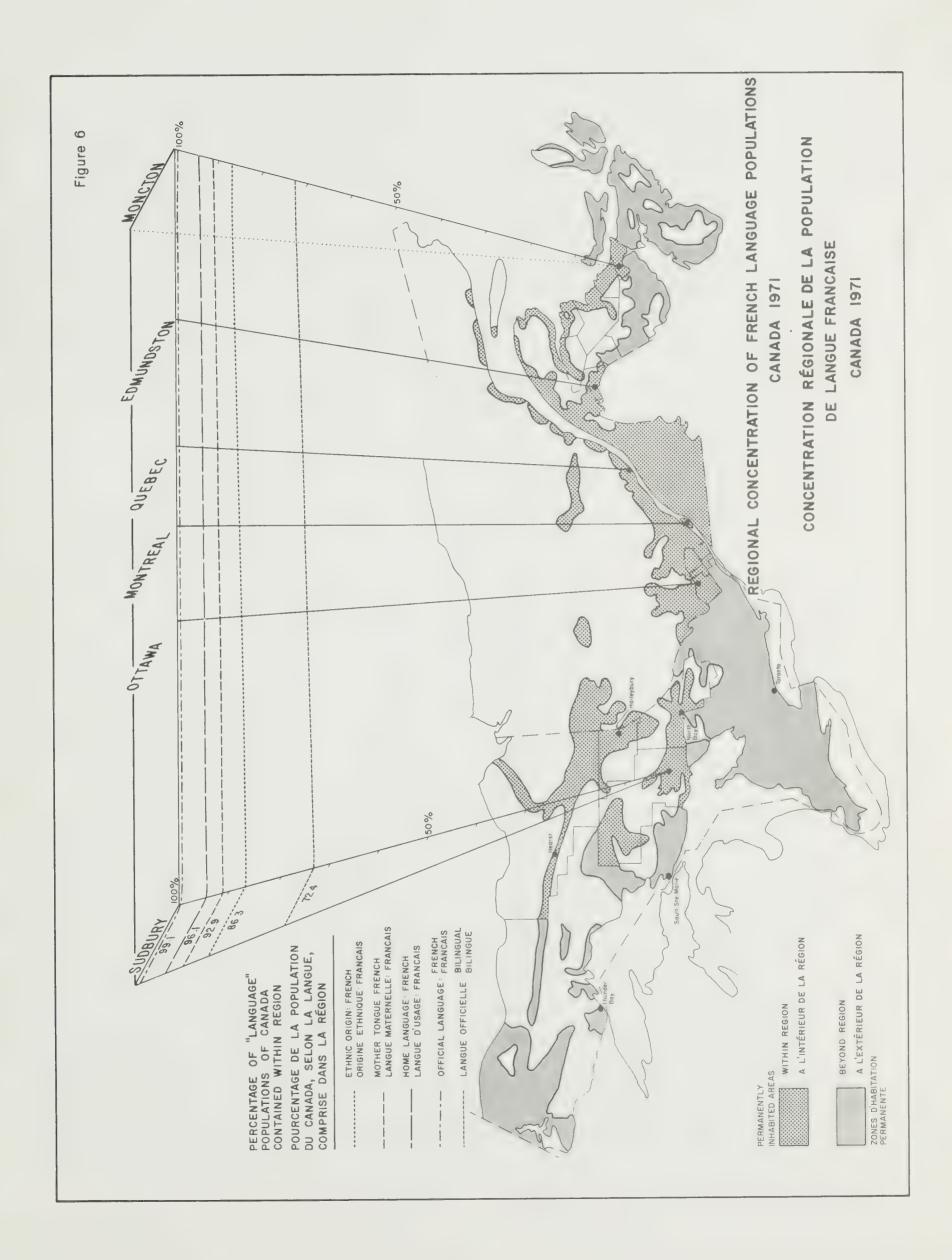
. Source: Statistique Canada, Catalogue: 92-723, 92-773, 92-726.

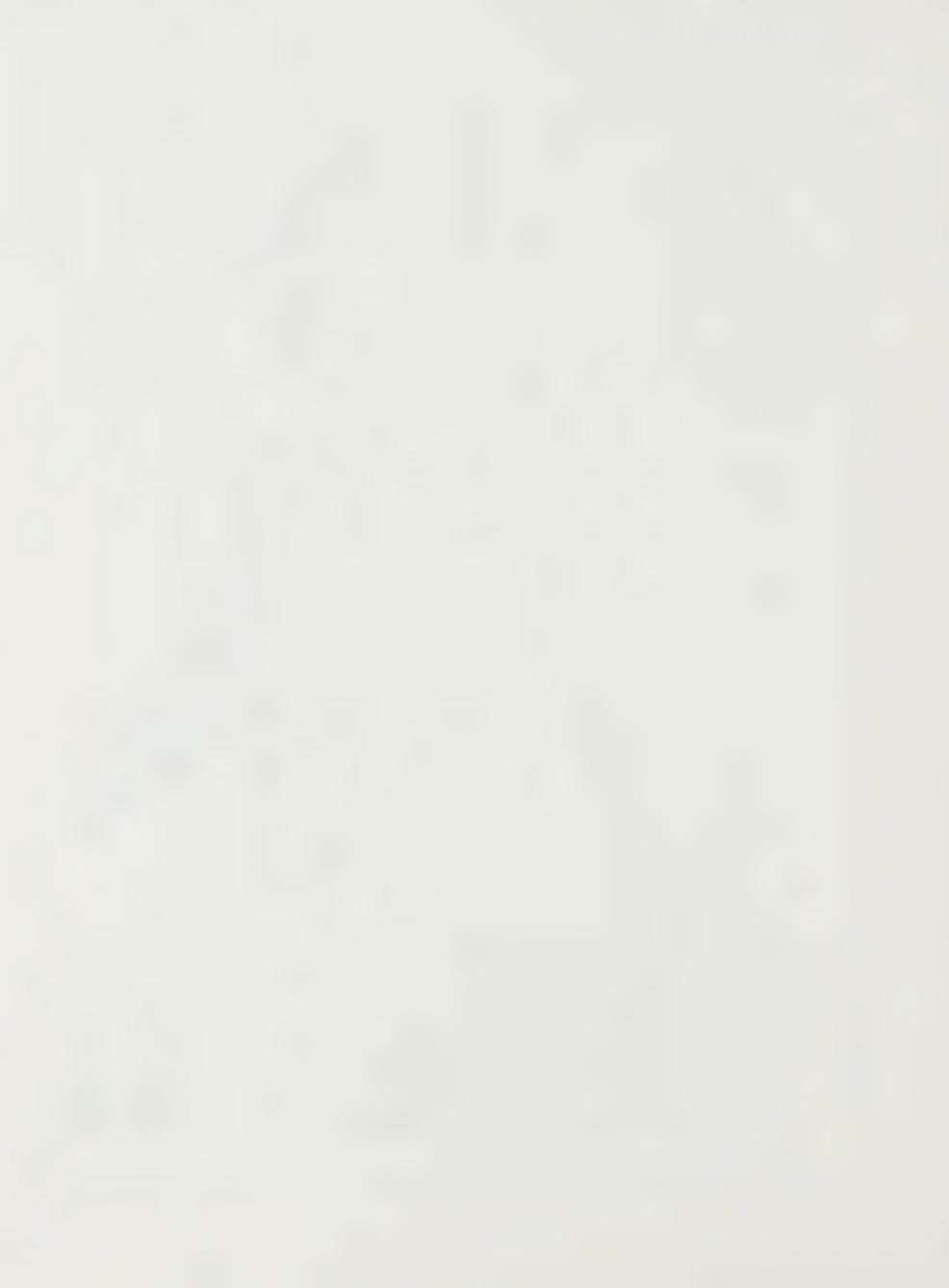




Source Statistics Canada, Geography Section







related these concentrations to the actual distribution of permanently inhabited areas of central and maritime Canada in 1971 (fig. 5). An ecumene map represents areas that are permanently inhabited (fig. 5) and the analysis of data becomes more meaningful if it is related to this distribution rather than to the geostatistical units of province, census division, census subdivision, etc. alone. At times one was restricted to these units because the presentation of data by Statistics Canada was so presented. However, through a manipulation of scale and the juxtaposition of these scale variations to an ecumene map one was able to achieve greater flexibility in the analysis of language data. Population densities could also be calculated, once language communities are identified, thereby indicating a potential for contact and conflict.

The area between Moncton and Sudbury contained the majority of the four component "language populations" for the Francophones of Canada (fig. 6). Within this part of central and eastern Canada were found the strongest and most potentially viable French language communities in the country. The language was used in the home and in the community and the size of the population was sufficient to support various institutions dedicated to language preservation and to warrant critical services such as French language newspapers, radio and television. The distribution of the French-language population was not even throughout the region, however, and the intensity of concentration was highly varied. There were essentially two zones within this Francophone region of Canada. One was the French language zone in which the intensity of French language usage was greatest, and the other was a bilingual zone which represented a zone of contact between Canada's two official language populations.

The French Language Zone

The permanently inhabited area of the province of Quebec maintained a strong orientation to the St. Lawrence Lowlands (fig. 5). In spite of the efforts of lay and diocesan colonization societies to lead settlers into the Laurentide valleys to the north, agrarian settlement there had always provided a marginal existence The townships to the east of the St. Lawrence were taken up gradually by habitants who responded to the colonization programmes of Bishop Bourget of Montreal and his successors. The descendants of the original Anglophone land-owners in this eastern region were clustered in the townships along the international boundary between the United States and Quebec.

West of the core area, nineteenth century Francophone settlers followed the commercial timber operations into the Ottawa Valley and upon arrival found that most of the better farm land, on the Quebec side of the boundary, had been taken up by Anglophone settlers. Because of the proximity of the edge of the Canadian Shield to the north shore of the Ottawa River, colonizers were forced to move northward into the tributary valleys of the Ottawa (fig. 5). With the eventual decline of the timber industry, the principal market for farm produce in the valley, these northern

^{4.} Gibson, P.M. Settlement and Abandonment of Land in the Rouge Valley, Laurentides, Quebec, unpublished M.A. thesis, Dept. Geography, McGill University, Montreal, 1966.

^{5.} Blanchard, R. "Les Cantons de l'Est", Revue de Géographie Alpine, Université de Grenoble, tome XXV, 1937. See also, Hunter, J.I., The French Canadian Invasion of the Eastern Townships, unpublished M.A. thesis, McGill University, 1939.

^{6.} Blanchard, R., <u>Les Pays de l'Ottawa</u>, Grenoble, France, Impr. Allie, 1949.

settlers found themselves poorly situated to compete in the burgeoning urban markets of Hull, Ottawa and Montreal. Furthermore, they were on land that, because of limitations in lot size and topography, could not accommodate to the new mechanized farming techniques of the twentieth century. There were to be only a few scattered townships along the north side of the Ottawa watershed in which French-Canadian settlers survived and became ethnically dominant (fig. 7). In the other townships they were in contact with people of predominantly British ethnic origin.

Considering the prevalence of English-language communities on the periphery of the French-Canadian core area, is it feasible to speak of a French-language zone in this province in the twentieth century? The manipulation of two language variables was applied to each census division within Quebec to determine the existence of such a zone. All census divisions in which the French-language-of-the-home population was greater than 90.0% of the total population were considered to be within the French language zone. The second variable was calculated from official language data. The ratio of a unilingual population to the home-language population provided an index of language intensity.

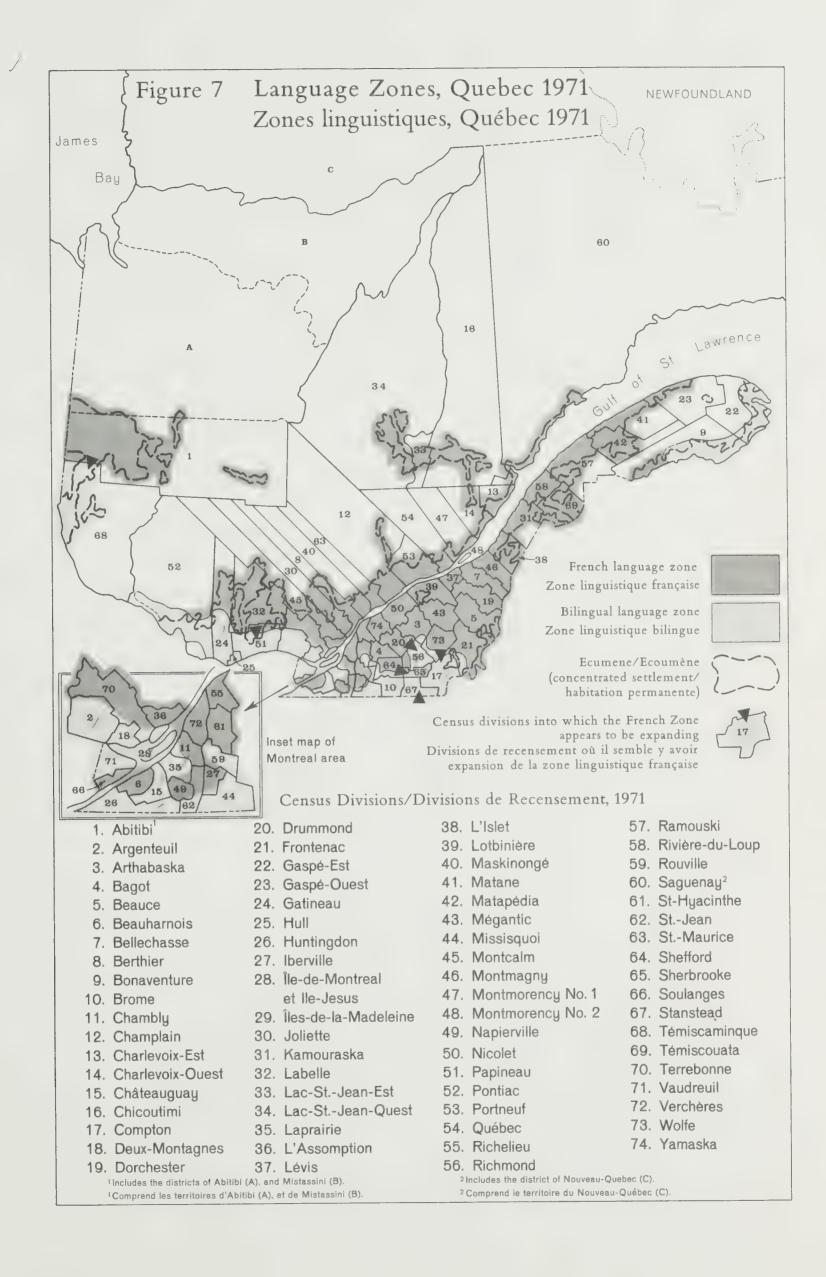
Language Intensity Index and Language Zones

To each of the census divisions a language intensity index was calculated by determining the ratio between the population who spoke either French only or English only, to the French home-language or English home-language population, respectively. In a census division in which French was spoken as the language of the home by ninety per cent or more of the total population one would expect to find that a high propor-

tion of the people would speak only French. Consequently the closer index of language intensity would be to unity (r=1.0), the more certain one could be of locating that census division within the French language zone. Conversely as one moved away from the core of this zone one would expect the intensity index of French to approach zero while the index for the English language would begin to strengthen.

If one wished to obtain a measure of the linguistic vitality for any community one must use data that were related to the language of the home. People who were classified by Statistics Canada as using English or French as the language of the home were considered to be those who "spoke" the respective languages. Too often mother-tongue data were used incorrectly to determine the number of people who "spoke" English or French in a community. It was possible to provide an indicator of language retention for any community by comparing the home-language population to the mother-tongue population and converting the resultant ratio to a percentage. For example, of the French mother-tongue population for census divisions within the French language zone (fig. 7) the percentage who used the language in the home was close to one hundred. This percentage weakened with distance from the core area of French Canada. below passim.)

However, it was to assess the strength of the spoken language in any census unit, that the ratio of the language-of-the-home population to total population was calculated and expressed as a percentage. Hence, within the French and English language zones, census divisions that contained a proportion of ninety per cent or more of the respective language-of-the-home populations were considered indicative of the vitality of one language group relative to the other.





It was possible that when one obtained values that indicated relatively strong French or English language usage, as in parts of the bilingual zone, the assumption would be made that it reflected the usage of the language throughout the entire census division. To substantiate this, it was necessary to calculate an index of language intensity.

Let us assume that in a given census division 80% of the total population used French as the language of the When a language intensity index was calculated for this area, however, a low measure was obtained (close to 0.00). This implied that beyond the home people used English as the language of work, for entertainment, religious services, shopping, education and for personal services. Consequently, they had acquired sufficient knowledge of the second language to be classified as bilingual. Conversely, if the language intensity index approached unity (1.00) the implication was that people were not required to learn the second language to function in their mother tongue beyond the home. Services, employment, etc., could be obtained and conducted in the same language as that used in the home. The use of the language was sufficiently ubiquitous in the community that one did not enter a different language milieu when one left the home. when one component of a language population, the language of the home, was related to another, those who were unilingual, the resultant language intensity index provided an indicator of the ubiquity of that language. This was not converted to a percentage because the interest was in the language itself and not in the size or strength of the population who used the language.

Furthermore it was assumed that if one attempted to calculate a similar index of language intensity by relating

a unilingual population, French or English, to total population for a geostatistical unit a reliable measure of language ubiquity would not be achieved. A total population within a given unit often was composed of many ethnic groups. This was particularly true for census divisions that were peripheral to the French language zone, such as Ile-de-Montréal et Ile-Jésus.

In this division the unilingual French population was less than half of the total population (40%). However, the language intensity index for the same unit was .63 suggesting that the use of French beyond the home was greater than one would gather from a computation using unilingual population and total population.

There was also a spatial significance to the calculation of an index of language intensity. In Northumberland County, New Brunswick, fewer than 12% of the total population were unilingual French. When the language intensity index for the French-speaking population was calculated the results indicated that just over half (.51) were able to function in their mother tongue throughout the community. The spatial significance of this was considered to be the element of isolation. Many Francophones in Northumberland County experienced little or no interaction with the Anglophones of the county. These people were able to use French beyond the home and apparently did not encounter situations that required the use of the second official language.

In Glengarry County in eastern Ontario, the number of settlers of French mother tongue grew steadily throughout the late nineteenth and early twentieth centuries as English-speaking farmers migrated to western Canada. The habitants from Quebec maintained contacts with family and friends in the older parishes in Soulanges and Vaudreuil

(Quebec) and, in some areas, with Francophone parishes in Prescott County (Ontario). These contacts helped to sustain the flow of Francophone settlers into eastern Ontario and, simultaneously, the maintenance of the French language. The latter was reflected in the census data of 1971 for about 40% of the total population were using French as the language of the home in Glengarry County (table 7). A remarkable accomplishment when one considers that the population of French mother tongue was only 44.2% of the total population.

In spite of the cultural linkages with Quebec the Francophone colonists in Glengarry were required to learn English, and in some situations Gaelic, to converse with their British neighbours or landlords, or to use services in local towns and villages⁷. Even during the early settlement period these people were unable to obtain the services of a French-speaking parish priest, hence the practice of returning to the "home parish" in Quebec for special occasions such as baptism or religious holidays⁸.

This practice of living within two language environments, one in the home and another in the community, was reflected in the computation of the language intensity index for the Francophone population of Glengarry County. At .25 it contrasted markedly with the language intensity index for the same language population in the adjacent counties of Vaudreuil and Soulanges, across the provincial boundary in Quebec, at .65 and .76 respectively (tables 5 and 7).

^{7.} Centre de recherche en civilisation canadienne-française, Université d'Ottawa, ACFEO records, various years.

^{8. &}lt;u>Diocesan Archives</u>, Alexandria, Ontario: parish records, various years.

Certain census divisions within Quebec (and within the French language zone) had a lower score on the language intensity index for the Francophone population than was anticipated, particularly those in which there was a large number of people of English mother tongue. This was partly because of the editing procedures employed by Statistics Canada on language data. It was conceivable that an individual of English mother tongue married to a person of French mother tongue and living in a milieu in which French was the language of the home, would eventually become unilingual French since the opportunity to use his/ her mother tongue was minimal. Furthermore, the interpretation of "... understood ... " for any language was highly subjective and one could understand a language, perhaps imperfectly, without being able to speak that language with ease. The individual who responded as "English" for mother tongue and "French" for the language of the home, however, was classified by Statistics Canada as "bilingual". Hence the population of official-language "French only" was under-represented in some counties within Quebec. The same situation applied to those of "French" mother tongue and "English" home language who were living within one of the English language zones (fig. 7).

As an example, the census division of Drummond, located in the townships to the east of the St. Lawrence River was examined (table 3). In 1941 the population of English mother tongue comprised 6.4% of the total population, but by 1971 this had declined to 3.1%, although the absolute number of Anglophones had declined by only 354 in the thirty-year period (2,329 in 1941 to 1,975 in 1971). On the other hand, the population of French mother tongue had increased by 27,710 people in the same period and had strengthened from 93.6% to 96.5% of the total population.

TABLEAU 3

Language	Data	for	English	
and Frenc	ch Com	muni	ties,	
Census Di	ivisio	n of	Drummor	nd,
Quebec, 1	L971			

Données linguistiques, groupes anglophone et francophone, Division de recensement de Drummond, Québec,1971

Total population totale		· ·		% of/du Total		L.I.
64,140	61,930	96.5	62,010	96.7	51,595	.83
	E.M.T. A.L.M.	% of/du Total		*	OL:EO LO:AS	
	1,975	3.1	2,000	3.1	905	.45
	OL:E&F LO:A&F	% of/du Total				***
	11,600	18.1				

L.I		Intensity			
			F F1 1 1		

I.L. - Indice de concentration linguistique $\frac{\text{LO:FS}}{\text{FLU}}$, r = 1.00

F.M.T. - French mother tongue population

F.L.M. - Français langue maternelle

E.M.T. - English mother tongue population

A.L.M. - Anglais langue maternelle

OL:FO - Official languages - French only

LO:FS - Langue officielle - Français seulement

OL:EO - Official languages - English only

LO:AS - Langue officielle - Anglais seulement

OL: E&F - Official languages - English & French (i.e. bilingual)

LO:A&F - Langues officielles - anglais et français (bilingues)

F.H.L. - Language of the home - French

F.L.U. - Français langue d'usage

E.H.L. - Language of the home - English

A.L.U. - Anglais langue d'usage

NOTE - These symbols will be used on all subsequent tables
NOTA - Ces symboles serviront à tous les tableaux suivants

Source - Statistics Canada, catalogues, 92-773, 92-726 Source: - Statistique Canada, catalogue 92,773, 92-726

TABLE 4

Language Data for English and French Communities, Census Division of Madawaska, New Brunswick, 1971

TABLEAU 4

Données linguistiques, groupes anglophone et francophone, Division de recensement de Madawaska, Nouveau-Brunswick, 1971

F.M.T. F.L.M.	% of/du Total	F.H.L. F.L.U.	% of/du Total	OL:FO LO:FS	L.I.
33,070	94.6	33,155	94.8	20,780	.63
E.M.T. A.L.M.	% of/du Total	E.H.L. A.L.U.	% of/du Total	OL:EO LO:AS	L.I.
1,795	5.1	1,800	5.1	900	.50
	,				
13,295	38.0				
	F.L.M. 33,070 E.M.T. A.L.M. 1,795 OL:E&F LO:A&F	F.L.M. Total 33,070 94.6 E.M.T. % of/du A.L.M. Total 1,795 5.1 OL:E&F % of/du	F.L.M. Total F.L.U. 33,070 94.6 33,155 E.M.T. % of/du E.H.L. A.L.M. Total A.L.U. 1,795 5.1 1,800 OL:E&F % of/du LO:A&F Total	F.L.M. Total F.L.U. Total 33,070 94.6 33,155 94.8 E.M.T. % of/du E.H.L. % of/du A.L.M. Total A.L.U. Total 1,795 5.1 1,800 5.1 OL:E&F % of/du LO:A&F Total	E.M.T. % of/du E.H.L. % of/du OL:EO A.L.M. Total A.L.U. Total LO:AS 1,795 5.1 1,800 5.1 900 OL:E&F % of/du LO:A&F Total

Source: Statistics Canada/Statistique Canada, Catalogues 92-773, 92-726.

In a county in which the people of French mother tongue were so strongly represented it was reasonable to assume that some people of English mother tongue had been assimilated into the French milieu through intermarriage. With a low language intensity index for the Anglophone minority of only .45 many of the people of English mother tongue must have been bilingual and hence potentially assimilable. Some, particularly the older people of English mother tongue, could have been unilingual French, although not classified as such by Statistics Canada. There was a lower probability that the unilingual English population was under-represented in a county that was situated within the French language zone. That is, the probability that a person of French mother tongue would use English as the language of the home was considered to be less. Hence, the language intensity index of .45 for Anglophones was likely more accurate than the index of .83 for Francophones; an analysis of unedited data would probably have provided an index closer to unity for the latter. Perhaps the important feature to re-emphasize regarding the application of the language intensity index was that those people who were unilingual French were under-represented in some parts of Quebec. If through the editing process of Statistics Canada they had been over-represented then the calculation of a language intensity index to justify the delimitation of a French language zone in Canada would have been less reliable.

In Figure 8 the French language zone of Canada was superimposed upon the ecumene of the provinces. It was necessary to draw attention to the inclusion of the county of Madawaska, New Brunswick, within the French language zone. The county had a high proportion of people of French mother tongue to total population (table 4) but a low language intensity index. Part of the explanation for this

could be found in the geographical location of the county on the "edge" of the French language zone and the frequency of contact with kin and kind across the international boundary in the state of Maine⁹.

Within the Quebec portion of this language zone (fig. 7) 8 out of 52 census divisions had a language intensity index below .80 but none of these eight was below .70 (table 5). Each of the lower values could be accounted for by the adjustment in editing (e.g. census division of Quebec) or because the census division was close to the "edge" of the French language zone and, hence, it was probable that the numerical accuracy of the "bilingual" population became greater. The opportunity for media and personal contact with the other official language would have increased the possibility of acquiring a knowledge of English. This feature of the "edge" of the zones will be discussed in detail later.

The English Language Zones

When the population of English home language was calculated at 90% or higher of the total population, by census division, the basis for the delimitation of an English language zone was established. Language intensity indices were also computed for these census divisions and a value at or close to unity usually substantiated the inclusion of that division within an English language zone.

^{9.} Bérubé, A., "La république du Madawaska" paper presented at Simon Fraser University, Vancouver, B.C. 1970. See also, Cameron, D., "Vive La République", Weekend Magazine, Sept. 21, 1974.

TABLE 5

TABLEAU 5

FRENCH LANGUAGE ZONE

Population by Home Language and Official Languages, by Census Division, 1971

ZONE FRANCOPHONE

Population selon la langue d'usage et les langues officielles, par division de recensement, 1971

CENSUS DIVISION DIVISION DE RECENSEMENT	TOTAL	F.H.L. F.L.U.	OIP	OL:FO LO:FS	qlp	LI	E.H.L.	qlo	OL:EO LO:AS	qlo	1111	OL:E&F LO:A&F	ф
QUEBEC	0	C	(i.		0	-		ć			(
I-ABILIBI	6 2 4	XO.	0	0,00					4,890	4 . 4			16./
3-ARTHABASKA	51,525	51,230	99.4	6,13	6			0.5		0.1	.16	5,340	10.4
4-BAGOT	23,590	23,455		21,525	91.2	.92	120	0.5	15	0.1	.13	2,040	8.6
5-BEAUCE	63,960	63,545	99.4	58,300	91.2	.92	375	9.0	55	0.1	.15	5,605	8
6-BEAUHARNOIS	52,140	49,560		36,660	70.3	.74	2,450	4.7	840	1.6	. 34	14,610	28.0
7-BELLECHASSE	23,515	23,440	7.66	22,070	93.9	.94	80	0.3	10	0.0	.13	1,440	6.1
8-BERTHIER	27,290	27,050	99.1	24,020	88.0	68.	220	0.8	70	0.3	.32	3,195	11.7
12-CHAMPLAIN	113,150	110,505		93,705	82.8	. 85	2,045	1.8	475	0.4	.23	18,745	16.6
13-CHARLEVOIX-EST	16,780	16,725	99.7	15,065	89.8	06.	55	0.3	2	0.0	60.	1,710	10.2
14-CHARLEVOIX-OUEST	13,650	13,585		12,765	93.5	.94	20	0.4	ı	0.0	00.	882	6.5
16-CHICOUTIMI	163,345	158,090		137,195	84.0	.87	4,975	3.0	1,965	1.2	.39	24,155	14.8
19-DORCHESTER	32,470	32,075	98.8	29,955	92.3	.93	375	1.2	75	0.2	.20	2,440	7.5
20-DRUMMOND	64,140	62,010	7.96	51,595	80.4	. 83	2,000	3.1	908	1.4	.45	11,600	18.1
21-FRONTENAC	27,290	26,975		24,580	1.06	.91	285	1.0	100	0.4	.35	2,605	9.5
23-GASPE-OUEST	18,755	17,910	95.5	16,255	86.7	.91	835	4.5	480	2.6	.57	2,020	10.8
27-IBERVILLE	20,400	19,585		15,600	76.5	. 80	260	2.7	260	1.3	.46	4,505	22.1
29-ILES-DE-LA- MADELEINE	13,305	12,425		10,950	82.3	88	870	6.5	765	5.7	80	1,590	12.0
30-JOLIETTE	52,090	51,255	98.4	44,235	84.9	.86	735	1.4	195	0.4	.27	7,645	14.7
31-KAMOURASKA	26,265	26,130		24,445	93.1	.94	120	0.5	30	0.1	.25	1,785	8.9
32-LABELLE	30,585	29,600	8.96	26,375	86.2	. 89	920	3.0	260	1.8	19.	3,640	11.9
33-LAC-ST-JEAN-EST	45,220	44,680	98.8	40,995	7.06	.92	520	1.1	135	0.3	.21	4,095	9.1
34-LAC-ST-JEAN- OUEST	57,070	56,455	98.9	53,200	93.2	.94	270	0.5	35	0.1	.13	3,800	6.7
36-L'ASSOMPTION	62,200	59,500	95.7	47,405	76.2	. 80	2,430	3.9	1,215	2.0		13,575	21.8
37-LEVIS	62,775	62,115	6.86	52,620	83.8	. 85	605	1.0	155	0.2	.26	566'6	15.9
38-L'ISLET	23,185	23,095	9.66	21,750	93.8	.94	06	0.4	10	0.0	.11	1,430	6.2
39-LOTBINIERE	27,375	27,085		25,100	91.7	.93	285	1.0	75	0.3	.26	2,195	8.0
40-MASKINONGE	21,260	20,420	0.96	19,310	8.06	.95	120	9.0	10	0.0	.08	1,640	7.7
41-MATANE	30,260	30,025	99.2	27,780	91.8	.93	240	0.8	65	0.2	.27	2,415	8.0
42-MATAPEDIA	26,855	26,740	9.66	25,270	94.1	.95	110	0.4	30	0.1	.27	1,550	5.8
43-MEGANTIC	58,020	56,535	97.4	49,500	85.3	. 88	1,430	2.5	450	0.8	.31	8,070	13.9
45-MONTCALM	21,545	19,990	92.8	16,730	77.7	. 84	1,420	9.9	845	3.9	09.	3,955	18.4
46-MONTMAGNY	26,305	26,150	99.4	24,245	92.2	.93	140	0.5	15		.11	2,055	7.8
47-MONTMORENCY NO 1	20,400	19,925	97.7	17,775	87.1	68.	460	0.2	275	1.3	09.	2,345	11.5
48-MONTMORENCY NO 2 (ILE-D'ORLEANS)	5,435	5,425	9.8	4,865	89.5	06.	5	0.1	1	0.0	00.	565	10.4
49-NAPIERVILLE	12,065	11,765	0	10,240		00	200		80		4	4	4
,))				19	-	0

TABLEAU 5 (suite) TABLE 5 (cont'd)

50-NICOLET 30,005 53-PORTNEUF 51,540 54-QUEBEC 423,160 55-RICHELIEU 47,090 57-RIMOUSKI 64,265 58-RIVIERE-DU-LOUP 39,485 60-SAGUENAY 111,270 61-ST-HYACINTHE 50,495 62-ST-JEAN 45,895 64-SHEFFORD 62,360 66-SOULANGES 11,450	29,845 99. 48,805 94. 406,465 96. 45,855 97. 63,830 99. 39,320 99. 91,080 81. 41,540 90. 105,510 97.	27,450 91.5 43,430 84.3 312,975 74.9 38,350 81.4 57,330 89.2 35,770 90.6 78,405 70.5 42,660 84.5 28,985 63.2	. 92 . 92 . 77 . 90	2.635	0.3			.26		
423 47 47 64 64 111 111 111 111 111 E 108	48,805 94. 406,465 96. 45,855 97. 63,830 99. 39,320 99. 91,080 81. 49,980 99. 41,540 90. 105,510 97.	43,430 84. 12,975 74. 38,350 81. 57,330 89. 35,770 90. 78,405 70. 42,660 84.	œ L œ e	,63		25	0		2,520	8.4
423 47 64 0-LOUP 39 THE 50 E 108 E 108	406,465 96. 45,855 97. 63,830 99. 39,320 99. 91,080 81. 49,980 99. 41,540 90. 105,510 97.	12,975 74. 38,350 81. 57,330 89. 35,770 90. 78,405 70. 42,660 84.	7 8 6.	1	5.1	1,320	2.6	.50	6,780	13.2
THE 50	45,855 97. 63,830 99. 39,320 99. 91,080 81. 49,980 99. 41,540 90. 105,510 97.	8,350 81. 7,330 89. 5,770 90. 8,405 70. 2,660 84. 8,985 63.	œ o.	14,790	3.5	4,545	1.1	.31	105,365	24.9
U-LOUP 39 THE 50 E 108	63,830 99. 39,320 99. 91,080 81. 49,980 99. 41,540 90. 105,510 97.	5,770 90. 8,405 70. 2,660 84.	6.	1,060	2.3	450	1.0	.42	8,240	17.5
U-LOUP 39 THE 50 E 108	39,320 99. 91,080 81. 49,980 99. 41,540 90. 105,510 97. 57,275 91.	5,770 90. 8,405 70. 2,660 84. 8,985 63.		390	9.0	85	0.1	.22	6,845	10.7
THE 50	91,080 81. 49,980 99. 41,540 90. 105,510 97. 57,275 91.	8,405 70. 2,660 84. 8,985 63.	16. 9	150	0.4	25	0.1	.17	3,695	9.4
THE 50	49,980 99. 41,540 90. 105,510 97. 57,275 91.	2,660 84.8,985 63.	98.	9,775	80	9,170	8.2	.93	18,690	16.8
45 108 62 11	41,540 90. 105,510 97. 57,275 91.	8,985 63.	58.	315	9.0	70	0.1	.22	7,745	15.3
E 108	105,510 97.		2 . 70	3,830	8.3	1,865	4.1	. 49	14,920	32.5
62	57,275 91.	86,045 79.4	. 82	2,725	2.5	800	0.7	. 29	21,490	19.8
11,4	1 0	44,835 71.9	87.	4,860	7.8	2,445	3.9	. 50	15,055	24.1
	10,915 95.3	8,325 72.7	92.	515	4.5	205	1.8	.40	2,910	25.4
69-TEMISCOUATA 23,190	23,105 99.6	21,565 93.0	.93	75	0.3	15	0.1	.20	1,610	6.9
70-TERREBONNE 139,945	125,905 90.0	94,860 67.8	3 . 75	12,395	8.9	6,870	4.9	. 55	37,925	27.1
72-VERCHERES 35,270	32,770 92.9	25,040 71.0	92.	2,400	6.8	1,260	3.6	.53	8,970	25.4
16,195	15,865 98.0	14,380 88.8	16.	325	2.0	195	1.2	.60	1,625	10.01
74-YAMASKA 15,205	15,115 99.4	13,925 91.6	92	85	9.0	15	0.1	.18	1,265	. w
(SUB-TOTAL) 2,721,645	2,610,110 95.9	2,209,195 81.2	. 85	87,560	3.2	44,490	1.6	.51	459,375	16.9
NEW BRUNSWICK										
7-MADAWASKA 34,975	33,155 94.8	20,780 59.4	.63	1,800	5.1	006	2.6	.50	13,295	38.0
2,756,620	2,643,265 95.9	2,229,975 80.9	. 84	89,360	3.2	45,390	1.6	.51	472,670	17.1

L.I.: language intensity index (r. = 1.0) I.L.: indice de concentration linguistique (r. = 1.0)

Source: Statistic Canada/Statistiques Canada, Catalogue 92-726.

TABLE 6
SELECTED FRENCH COMMUNITIES WITHIN
THE ENGLISH LANGUAGE ZONE, 1971

TABLEAU 6 GROUPES FRANCOPHONES CHOISIS AU SEIN DE LA ZONE ANGLOPHONE, 1971

ſ					1 0	10	with
	qp		36.	32	34.0	8 .0	œ 4.
	OL:E&F LO:A&F		7.355 36.1		7	22,285	45,170
	II		.91		06.	66.	1,0
	dР		58	64.9	62.0	84.6	89.9
	OL:EO LO:AS		11,885	16.020 64.9	27,905 62.0 .90	218,780 84.6	485,480 89.9 1,0
	EHT EMT ALU ALM	9	104.1	108.3	106.5	115.6	122.2
	qlp		63.9	73.4	69.1	85.5	86.5
	EHL		13,005 63.9	18,125 73.4 108.3	31,130 69.1 106.5	221,075 85.5 115.6	467,460 86.5 122.2
	qlp		51.4	57.8	54.9	73.9	8.04
	EMT		12,490 61.4	16,730 67.8	29,220 64.9	191,200 73.9	382,495 70.8
	II		.15	.11	.13	.14	.12
	qlp		5.5	2.9 .11	4.1	0.03 .14	0.4 .12
	OL:FO LO:FS		1,110	715	1,825	830	2,035
FHI	FINT FLU FLM (\$)		94.5	83.4	88.9	25.6	57.7
	90			26.3		2.9	3,3
	FHL		7,305 35.9	6,495 26.3	13,800 30.6	5,920 2.9	17,660 3.3 57.7
	qlo		38.0	31,5	34.5	8.9	5.7
	FMT		7,730 38.0	7,785 31.5	15,515 34.5	23,125	30,605 5.7
	TOTAL POPULATION TOTALE		20,350	24,685	45,035	258,645	540,260
	COMMUNITIES GROUPES	(i) DIGBY-YARMOUTH	DIGBY, C.D.	YARMOUTH, C.D.	(TOTAL)	(ii) WINDSOR, CMA.	(iii) CENSUS DIVI- SION NO.20, MAN. (WINNIPEG- ST.BONIFACE)

L.I.: language intensity index (r. = 1.0) I.L.: indice de concentration linguistique (r. = 1.0)

Sources: Statistics Canada/Statistique Canada, Catalogues 92-726, 92-773.



However, within the English language zones communities of French mother tongue existed (table 6). These were language islands that were situated within an environment in which the use of English at home and in the community was predominant. Within some of the language islands the use of French in the home was still strong relative to the population of French mother tongue, but neither this ratio nor the indices of language intensity had the strength that was found within the French language or bilingual zones. Similarly, the opportunities for regular use of the language beyond the home were very limited or non-existent.

For these communities, isolated from regular contact with the French language zone of Canada, the ratio between the language-of-the-home population and the mother-tongue population was a more meaningful indicator of language maintenance. The language intensity index became a measure of the power of the English-language environment and a reflection of the attraction that the second official language had upon the minority. This characteristic will be expanded upon in that part of the Reference Supplement in which the Atlantic region is discussed.

Along the edges of the English language zones, particularly in eastern Canada, the English language intensity index began to weaken and the French language index began to strengthen. Although in certain census divisions along these margins the English language intensity index attained a .90 level, the territory was not placed within the English language zone. The increase in the French language intensity index and particularly the strength of the French-home-language to French-mother-tongue ratio, warranted inclusion of the unit within a bilingual zone. To explain the high index of English language intensity within a "bilingual zone" for some census divisions it was necessary

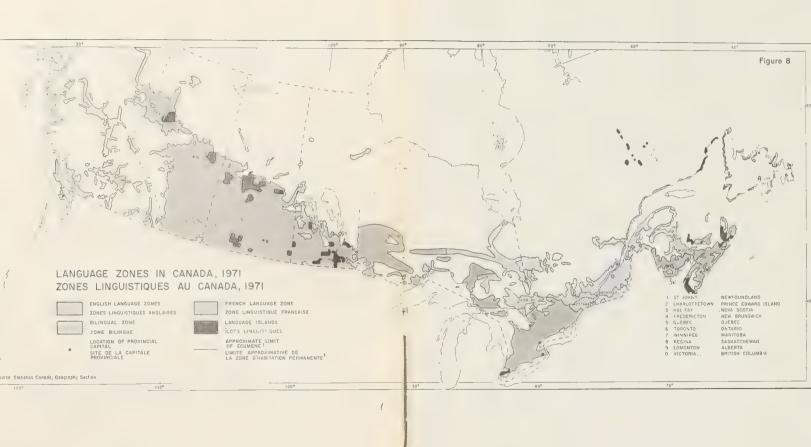
to alter the scale of analysis of language population distribution and to place this larger scale analysis in the context of the distribution of permanent habitation.

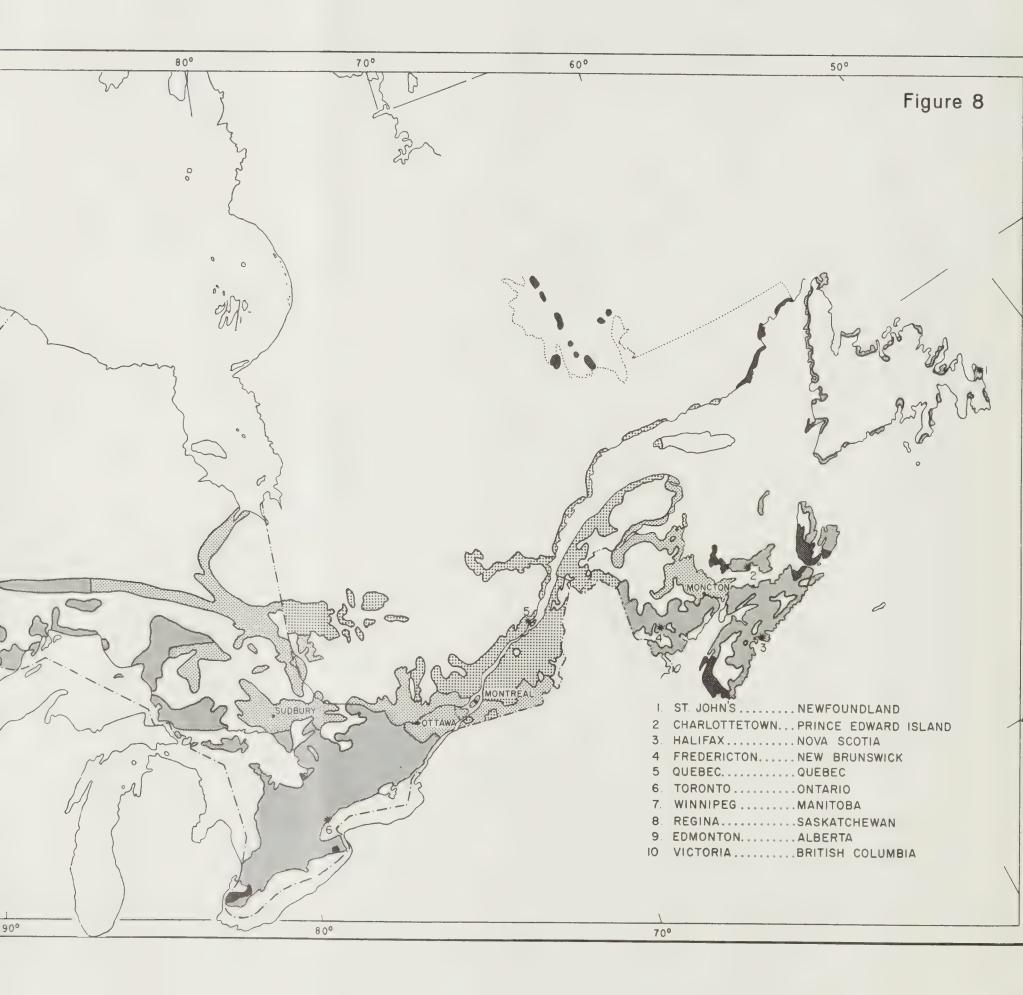
The Bilingual Zone

Within both the French and English language zones the unilingual language populations had been underestimated while the bilingual population had been overestimated for the reasons given above. The high index of language intensity for either language group indicated that it was difficult for one to maintain a minority mother tongue, as a spoken language, once the other official language had become the language of the home. The interzonal region (fig. 8) had been for generations the area of contact between the two language groups, a region designated as the "bilingual belt" by Joy in 1967¹⁰.

It was in part of this zone that the colonization programmes of the Roman Catholic diocesan societies were applied. Within the western portion of the bilingual zone French Canadian settlement was not random but reflected a formal and functional organization of territory that sustained the community and the language beyond the French language zone of Quebec. Within Quebec, east of the St. Lawrence Valley, the bilingual zone contained many of the descendants of British and United Empire Loyalists. The early settlers took up land under the auspices of British eighteenth century policy designed to create an English language buffer between "New France" and the nascent United

^{10.} Joy, R.J., Languages in Conflict, published by the author, Ottawa, 1967 (McClelland and Stewart Ltd., Toronto, have now published Joy's work under the same title in the Carleton Library Series, 1972.)





States of America. To the east in Gaspé and New Brunswick the zone embraced the small English language communities clustered along the shore of Chaleur Bay and the Acadian settlements of northern and eastern New Brunswick.

Because of the opportunity for contact between the two official language groups, one or both had to attain a certain degree of competence in the language of the other. Vallee and Dufour calculated that beyond Quebec, it had been the people of French mother tongue who had been consistently the dominant group within the bilingual population of this zone 11. The Franco-Ontarians found it increasingly necessary to learn English as markets for agricultural products expanded beyond the commercial interests of the timber industry and incorporated the burgeoning urban populations. The young were attracted to a relatively steady cash income as job opportunities in cities within the bilingual zone, particularly in Sudbury, Ottawa, Cornwall, Montreal, Bathurst and Moncton, attracted many away from a demanding rural existence 12.

Various calculations were applied to the census divisions that were situated between the French and English language zones to designate a bilingual zone (table 7). The first characteristic of the population within the census divisions of the zone was a decline in the percentage of home language population to total population, normally

^{11.} Vallee, F.G. and Dufour, A., "The Bilingual Belt: A Garotte for the French?" Laurentian University Review, vol. VI, n. 2, 1974.

^{12.} Archdiocesan Archives, Ottawa, Parish Records, Annual Reports to the Bishop, various years, particularly 1880's and 1890's.

below the ninety per cent level described above. At the same time the use of the second official language as the language of the home began to increase in these interzonal census divisions. The language intensity index for the dominant language groups began to wane in these divisions, relative to the strength within the English and French zones, or the index for the two groups became more evenly balanced. Furthermore, of the total "bilingual population" of Canada, 73.0% were located within the region designated as the bilingual zone (fig. 6).

It was probable that this zone contained the majority of people in Canada who were truly bilingual, the vagueness of such a designation notwithstanding. Many of the 27% of the bilingual population who lived beyond the bilingual zone may have revised their response on the census questionnaire if they had the opportunity for regular contact with a Francophone population. Furthermore, the likelihood of incorrectly classifying people as bilingual, through the editing procedure of Statistics Canada, was greater outside this bilingual zone. Many people who lived within the language islands in the English language zones and who were classified as bilingual were more likely to have been unilingual English if the language of the home had been English for several years. Finally, of the population of English mother tongue who were living in the province of Quebec, 89.1% were within the census divisions that constitute the bilingual zone of that province (fig. 7).

There are two characteristics of these language zones that must be emphasized at this point. The "edges" of these zones were frequently impossible to delimit as one zone graded into the other so that a true frontier existed between them. Secondly, they were dynamic zones. With changes in language usage over time the English, Bilingual, and French

TABLE 7

THE BILINGUAL ZONE Population by Home Language and Official Languages, by Census Division, 1971

TABLEAU 7

LA ZONE BILINGUE
Population selon la langue d'usage et les langues officielles, par division de recensement, 1971

CENSUS DIVISION DIVISION DE RECENSEMENT	TOTAL POPULATION TOTALE	FHL	qlo	OL:FO LO:FS	οlo	LI	EHL	qlo	OL:EO LO:AS	QIO	II	OL:E&F LO:A&F	qlo
i-Northern Ontario and Quebec / Nord de 1'0 Nord-Ouest du Québec	and Northwestern 1'Ontario et bec	tern											·
(Ontario)													
4-COCHRANE	95,840	42,835	44.7	14,610	15.2	.34	47,250	49.3	41,735	43.5	88	38,175	39.8
29-NIPISSING	78,865	21,425	27.2	5,790	7.3	.27	55,685	9.02	47,870	60.7	00	4,93	
46-SUDBURY	198,075	52,175	26.3	11,130	5.6	.21	132,820	67.1	119,520	60.3	6	1,13	5
48-TIMISKAMING	46,485	10,690	23.0	3,765	8.1	.35	34,320	73.8	30,725	66.1		7	
(Québec)													
68-TEMISCAMINGUE	54,65	48,080	7 00	444	4	7	5,805	0	3,755	9	.65	5,40	
(SUB-TOTAL)	4/3,920	1/5,205	3/.0	/0,/35	14.9	.40	275,880	28.2	243,605	51.4	 ∞	93,410	19.7
ii-The Lower Ottawa Val La vallée inférieure	ley de 1	'Outaouais											
(Ontario)													
11-GLENGARRY	18,480	7,300	39.5	1,790	9.7	.25	10,935	59.2	8,225	44.5	.75	8,430	45.6
33-OTTAWA-CARLETON	471,930	82,700	17.5	18,395	3.0	.22	366,265	77.6		68.5	88.	, 14	9
39-PRESCOTT	27,830	22,460	80.7	10,880	39.1	.48	5,230	13.8	3,260	11.7	9	3,68	6
43-RUSSELL	16,290	13,525		6,825	41.9	.50	2,690	16.5	1,960	12.0	~	7,495	
45-STORMONT	61,300	16,885	27.5	3,205	5.2	19	43,235	70.5	33,510	54.7	. 78	24,450	39.9
(Québec)													
2-ARGENTEUIL	31,320	21,795	9.69	13,835	44.2	.63	9,335	29.8	6,330	20.2	. 68	11,140	35.6
18-DEUX-MONTAGNES	52,370	43,455	83.0	32,450	62.0	75	8,575	16.4	5,565	10.6	.65	4,3	7
24-GATINEAU	55,725	37,240	8.99	21,570	38.7	. 51 80	17,805	32.0	00	22.1	9	1,7	6
25-HULL	109,945	96,975	88.2	49,630	45.1	.51	11,575	10.5	6,155	5.6	.53	53,750	48.9
51-PAPINEAU	31,795	27,495	86.5	19,460	61.2	.71	4,265	13.4	2,390	7.5	.56	9,940	31.3
52-PONTIAC	19,570	7,255	37.1	2,870	14.7	.40	11,950	61.1	9,885	50.5	. 83	6,645	34.0
71-VAUDREUIL	36,595	25,665	70.1	16,750	45.8	.65	10,465	28.6	7,195	19.7	9	12,625	4
(SUB-TOTAL)	933,150	402,750	43.2	197,660	21.2	49	502,328	53.8		45.0	00	0,39	m
iii-Montreal, Southeast Quebec and the Eastern Townships Montréal, Sud-est du Québec et Cantons de l'Est	east Quebec Townships st du Québec												
(Québec)													
10-BROME	15,315	6,775	44.2	4,050	26.4	09	8,270	54.0	6,210	40.5	.75	5,010	32.7
11-CHAMBLY	231,590	179,065		117,155	50.6	.65	48,000	20.7	31,795	13.7	99.	٦,	5
15-CHATEAUGUAY	53,735	33,355	62.1	21,570	40.1	.65	19,465	36.2		25.9	7	8,16	\sim
17-COMPTON	21,365	17,015	9.61	13,350	62.5	. 78	4,310	20.2	,050	4.3	7	4,97	m
											_		

TABLE 7 (cont'd) TABLEAU 7 (suite)

CENSUS DIVISION DIVISION DE RECENSEMENT	TOTAL POPULATION TOTALE	FHL	0,0	OL:FO LO:FS	ONO.	LI	EHL	ЭЮ	OL:EO LO:AS	οψ	LI	OL: E&F LO: A&F	οlo
26-HUNTINGDON	15,360	7,885	51.3	4,380	28.5	.56	7,235	47.1	5,585	36.4	77.	5,380	35.0
28-ILE-DE-MONTREAL ET ILE-JESUS	2,187,155	1,383,785	63.3	866,380	39.6	.63	572,675	26.2	433,445	19.8	.76	834,325	38.1
35-LAPRAIRIE	61,690	47,000	76.2	31,960	51.8	.68	12,035	19.5	9,235	15.0	.77	20,215	32.8
44-MISSISQUOI	33,955	26,430	77.8	17,945	52.8	. 68	7,040	20.7	4,505	13.3	.64	11,475	33.8
56-RICHMOND	41,045	36,135	88.0	28,740	70.0	.80	4,855	11.8	2,485	6.1	.52	9,810	23.9
59-ROUVILLE	31,755	27,240	85.6	21,875	68.89	.80	4,330	13.6	2,880	9.1	.67	086'9	22.0
65-SHERBROOKE	101,470	89,450	88.2	966'09	60.1	.68	11,490	11.3	6,440	6.3	. 56	33,975	33.5
67-STANSTEAD	36,270	27,970	77.1	20,190	55.7	.72	8,165	22.5	5,580	15.4	.68	10,485	28.9
(SUB-TOTAL)	2,830,705	1,882,105	66.5	1,208,590	42.7	.64	707,870	25.0	525,130	18.6	.74	1,042,945	36.8
iiii-The Gaspē, Northern and Eastern New Brunswick Gaspē, Nord et Est du Nouveau-Brunswick	Northern and Brunswick et Est du swick												
(Québec)													-
9-BONAVENTURE	41,700	34,450	82.6	28,195	9.19	.82	6,455	15.5	5,260	12.6	.81	8,205	19.7
22-GASPE-EST	41,730	35,465	85.0	30,005	71.9	.80	6,245	15.0	4,070	8.6	.65	7,650	18.3
(New Brunswick)													
4-GLOUCESTER	74,750	60,525	81.0	40,380	54.0	.67	14,130	18.9	9,635	12.9	.68	24,720	33.1
5-KENT	24,900	19,975	80.2	060'6	36.5	.46	3,985	16.0	3,805	15.2	.95	11,835	47.5
8-NORTHUMBERLAND	51,560	11,905	23.1	6,035	11.7	.51	38,685	75.0	36,635	71.1	.95	8,755	17.0
10-RESTIGOUCHE	41,290	23,395	56.7	11,995	29.1	.51	17,815	43.1	13,085	31.7	.73	16,210	39.3
13-VICTORIA	19,795	7,150	36.1	3,030	15.3	.42	12,180	61.5	11,275	57.0	.93	5,480	27.7
14-WESTMORLAND	98,665	35,655	36.1	8,345	8.5	.23	62,585	63.4	54,380	55.1	.87	35,880	36.4
(SUB-TOTAL)	394,390	228,520	57.9	137,075	34.8	09.	162,080	41.1	138,145	35.0	. 85	118,735	30.1
(TOTAL)	4,632,165	2,688,580	58.0	1,614,060	34.8	. 60	1,648,155	35.6	1,326,735	28.6	.80	1,565,485	33.00

L.I.: language intensity index (r. = 1.0) I.L.: indice de concentration linguistique (r. = 1.0)

Sources: Statistics Canada/Statistique Canada, Catalogue 92-726.

zones ebbed and advanced. Because of these characteristics and because of the patterns and processes of Francophone settlement beyond the heartland of Quebec, it was essential to analyze the bilingual zone through variation in scale. Such variation illustrated that the concentration of Canada's bilingual population between Sudbury and Moncton existed as a discontinuous zone rather than as a solid "belt" of bilingual-

Another important feature of the bilingual zone was the presence of major urban service centres that had a strong minority mother-tongue component and a healthy ratio between the language-of-the-home and mother-tongue populations for both official language groups. This was a feature that was notably absent among most of the "language islands" that were located within the English language zones of Canada.

In Northern Ontario the bilingual zone appeared, at first, to have as a cultural focus the Census Metropolitan Area of Sudbury partly because of the geographical situation of the city within Northern Ontario and partly because of the absolute number of people of French mother tongue within the metropolitan area (49,570 = 31.9% of total urban population). This was the strongest ratio within the four cities of Northern Ontario (North Bay, Sudbury, Sault Ste. Marie and Thunder Bay). Beyond the limits of the metropolitan area of Sudbury the French mother-tongue population constituted 36.7% of the total population of the rural portion of the census division of Sudbury. Within the city there were several Francophone institutions that were sustained by the minority population of the city and the surrounding region. The bilingual university of Laurentian, Le Centre des Jeunes de Sudbury, and other cultural groups apparently helped to perpetuate the use of the language throughout the census division and ensured a linkage between the urban and rural

populations. However, when the Francophone population of this section of the bilingual zone was located by census subdivision and by enumeration area, within the limits of actual habitation provided by the ecumene map, it was found that there was a rapid deterioration of this minority population to the west of Sudbury and to the east of the city of North Bay (fig. 5). Furthermore, this form of investigation revealed that the minority population of this portion of the bilingual zone lacked the concentration that existed within Eastern Ontario and Quebec. Located along the transportation routes throughout Nouvel Ontario, the Francophone population was split among three areas:

- i the Sudbury-North Bay agglomeration
- ii the railway orientation of the Haileybury-Iroquois Falls-Cochrane-Hearst belt
- iii the northern sector of the District of Sudbury.

Between these populated areas there were large tracts of uninhabited and partially "unorganized" territory, a form of "hollow frontier", so that social linkages among the three appeared to be minimal. In the northern tier, service centres such as Kirkland Lake, Timmins, Cochrane and Kapuskasing were of greater significance than Sudbury because of their accessibility. The population of French mother tongue was strong in these centres, as was the use of the language in the home, so the potential for Francophone visitors to use their mother tongue in the towns appeared to be high. For the population within the northern part of the District of Sudbury road linkages were to Timmins and to Sault Ste. Marie in order of proximity (table 8).

The fragmented distribution of population was reflected in the territorial organization of the Roman Catholic dioceses of Northern Ontario. Part of the northern tier - Haileybury to Timmins - was within the Diocese of Timmins

LANGUAGE DATA FOR ENGLISH AND FRENCH POPULATIONS WITHIN SELECTED URBAN CENTERS, NORTHERN ONTARIO, 1971

DONNEES LINGUISTIQUES SUR LES POPULATIONS ANGLOPHONE ET FRANCOPHONE DE CENTRES URBAINS CHOISIS DU NORD DE L'ONTARIO, 1971

TABLEAU 8

qlp	44.5	0	30.3	23.7
OL:E&F LO:A&F	12.700 44.5	6.280 48.9	27.455 30.3	3,605 23.7
H	. 85	. 81	.95	16.
dio	45.9	35.1	64.6	72.9
OL: EO LO: AS	13,110 45.9 .85	4,510 35.1	58,520 64.6 .95	11,090 72.9 .91
EHL (%)		83.2	81.3	84.4
qb			68.2	80.3
EHL	15,495 54.3	5,550 43.2	61,755 68.2	12,210 80.3
OFF	43.0	36.0	55.4	67.7
FMT	12,270 43.0	4,620 36.0	50,200 55.4	10,300 67.7
LI	.21	. 29	.16	. 22
qlo	8 3	15.4 .29	3.4 .16	3.0 .22
OL:FO LO:FS	2,375	1,975	3,090	455
FHL (%) FMT (%) FLU FLU (%)	86.5	92.5	7.67	68.0
оно	39.7	53.5	21.5	13.7
FHL	11,310 39.7	6,855 53.5 92.5	19,500 21.5 79.7	2,085 13.7 68.0
οψ	45.8	57.7	27.0	20.2
FMT	13,075 45.8	7,410 57.7	24,455 27.0	3,065 20.2
TOTAL POPULATION TOTALE	28,545	12,835	90,535	15,205
URBAN CENTERS CENTRES URBAINS	TIMMINS,T/V	KAPUSKASING, T/V	SUDBURY, C.	TECK TWP. (KIRKLAND LAKE)

L.I.: language intensity index (r. = 1.0)I.L.: indice de concentration linguistique (r. = 1.0)

Sources: Statistics Canada/Statistique Canada, Catalogues 92-726, 92-773.



with the Bishop's see in the town of Haileybury. The territory west of Timmins was divided between the dioceses of Hearst and Sault Ste. Marie. Furthermore this division went beyond the level of the diocese as Timmins and Hearst were suffragan dioceses to the Archdiocese of Ottawa while Sault Ste. Marie was part of the ecclesiastical province of Kingston.

East of the city of North Bay, in the northern townships of Renfrew county, the population of French mother tongue declined steadily as one approached the city of Pembroke. In this urban centre the minority was only 10.2% of the total population. In Ontario, between Pembroke and the city of Vanier in the eastern half of the National Capital Region, the bilingual zone was severed by the English language zone of southern Ontario. Indeed by altering the scale of population distribution to the census subdivision it could be demonstrated that a portion of this English language zone actually penetrated the provincial boundary and incorporated three subdivisions within Pontiac County (figs. 7 and 8). Although the aggregate population of English mother tongue was only 4,305 people they constituted 94% of the total population for the three subdivisions and had a language intensity ratio that was as strong as many census divisions in Ontario (table 9).

From east Ottawa (City of Vanier) and Pontiac County, Quebec, the bilingual zone reappeared and extended into the southern section of the Census Metropolitan Area of Montreal on both sides of the provincial boundary. It has been stated that the accuracy of the bilingual data for Canada was probably greater within the bilingual zone. For this section of the zone, it was considered to be particularly so. The English and French had been in contact since commercial timber activities began to exploit the resources

of the lower Ottawa Valley in the eighteenth century. Seasonal movements from the farms into the shanties brought people of various ethnic origins together, particularly British and French. Three large urban centres were within an expanding commuting range — Ottawa, Cornwall, Montreal; ethnic contacts had also occurred in these cities for over a century.

The ratio of the population, classified as bilingual, to total population was among the highest in Canada throughout the census divisions between Ottawa and Montreal (table 7). A bilingual milieu was also revealed through a marked decline in the language intensity index, particularly for the Francophones throughout the valley. For the Anglophones, the language intensity index was stronger than that of the French but not as strong as the index for the census divisions in the English language zone to the west of the Cornwall-Ottawa "frontier". A comparison between the two indices for the Anglophone and Francophone populations concurred with the findings of Vallee and Dufour that west of Quebec the proportion of the bilingual population was skewed toward the people of French mother tongue 13. On the Quebec side of the boundary the language intensity index was not as heavily overbalanced between the two groups suggesting that there may have been a trend toward a more "balanced bilinqualism" in that province. This needs further research before a more definite statement can be made.

In the Quebec portion of the Ottawa Valley there were two census divisions within the bilingual zone that appeared to be gravitating toward the French language zone. These were Témiscamingue and Papineau (table 10). In the northern

^{13.} Vallee, F.G. and Dufour, A., ibid.

ions de Pontiac,	LIL	68.	. 94			68.	. 93
subdivisions comté de Pont	% of/du total	84.9	91.4	91.0	91.8	82.8	9.68
anglophone de s choisies du cc l	OL:EO % LO:AS to	925	3,070	1,510	1,560	120	4,115
anglopl chois:	EHL EMT ALU ALM (%)	105.6	101.7	101.3	102.1	108.0	102.8
TABLEAU 9 Population a recensement Québec, 1971	% of/du total	95.4	6.96	95.8	6.76	93.1	96.4
TAI Pol 71 rec	EHL	1,040	3,255	1,590	1,665	135	4,430
of Selected Census County, Quebec, 197	% of/du total	90.4	95.2	94.6	6.56	86.2	93.8
selected lty, Que	EMT	985	3,200	1,570	1,630	125	4,310
ulation of S Pontiac Cour	Total population totale	1,090	3,360	1,660	1,700	145	4,595
TABLE 9 Anglophone Population Subdivisions, Pontiac	Census Subdivision de recensement	Bristol	Clarendon	Rural	Shawville town/ville	Sheen, Esher, Aberdeen & Malakoff	TOTAL

L.I. - Language intensity index (r=1.0)I.L. - Indice de concentration linguistique (r=1.0)

Source: Statistics Canada/Statistique Canada, Catalogues 92-773, 92-726.



county of Témiscamingue the population increased by only 14,189 people between 1941 and 1971. The change in ratios between the two dominant mother-tongue groups indicated a marked drop for the English, 13.6% to 9.2% of the total population, while the French increased from 79% to 88% between the two time periods.

Papineau appeared to suffer from its proximity to the Ottawa/Hull metropolitan area. Its population had increased by only 4,239 people in the thirty-year period (1941 to 1971) and ratios were shifting in favour of the people of French mother tongue: English had declined from 14.1% to 12.2% and French had increased from 84.7% to 87.2%. In both counties of Témiscamingue and Papineau, the language intensity index for the French was fairly strong, .74 and .71 respectively, while the English was relatively weak at .65 and .56 respectively (tables 7 and 10-A). If this tendency continues it seems reasonable to assume that the French language zone will expand into these parts of the bilingual zone and some erosion of the latter will occur.

A trade-off may occur with Deux-Montagnes. Already classified as part of the bilingual zone the population of English mother tongue had been growing for the same time period (7.3% to 14.6%) while the French mother tongue population had been declining (89.5% to 83.3%). The influence of the Montreal Metropolitan Area must obviously be considered before anything meaningful can be said about the patterns and processes in Deux-Montagnes County (table 10).

In part of the bilingual zone of northern Ontario a similar pattern of encroachment of the English language zone appeared to be taking place with the decline of the population of French mother tongue relative to that of the population of English mother tongue. The census division

of Nipissing, on the southern edge of this northern Ontario zone, experienced a decline in the French minority from 47% to 32% of the total, while the English majority increased its proportion from 46% to 62% between 1941 and 1971 (table 11). In Sudbury the process was similar although the ranges for the two time periods were much lower. The French mothertongue population increased its proportion in Cochrane and in Timiskaming although in the latter census division there had been an overall decline in the population of over 4,000 people in the thirty-year period (table 11).

The major erosion in that part of the bilingual zone of eastern Ontario also took place along the margins (table 11). With the growth in total population in Ottawa-Carleton from 1941 to 1971, the ratio of the French mother tongue to total population declined from 28% to 19%, while the English proportion increased slightly from 68% to 71%.

East of Montreal the bilingual zone was more complicated in the composition and distribution of the two official language populations, than to the west of the metropolitan area. In the extreme eastern counties of Sherbrooke, Stanstead, Richmond and Compton, the population of English mother tongue had been declining since 1941 (fig. 7). Of the three counties Compton had actually experienced a decline in total population as well, from 23,856 to 21,367 in the thirty-year period. The county of Richmond had a high French language intensity index and, with the growth of the Francophone population in this county since World War II, the use of the language in the home intensified so that the population of French-home-language was greater than that of the French mother-tongue population (tables 7, 10 and 10-A). All four counties appeared to be trending toward the French language zone, particularly Richmond and Sherbrooke, as were Papineau and Témiscamingue in the Ottawa Valley. The population of

TABLE 10
THE BILINGUAL ZONE

POPULATION BY MOTHER FONGUE, FOR SELECTED CENSUS DIVISIONS, QUEBEC, 1941-1971

TABLEAU 10 LA ZONE BILINGUE POPULATION SELON LA LANGUE MATERNELLE, DIVISIONS DE RECENSEMENT CHOISIES, QUEBEC, 1941-1971

SEMENT	TAGE TAGE		1951		CHANGEMENT	41-51	1961		CHANGEMENT CHANGEMENT	NT: 51-61	1971		CHANGE: CHANGEMENT	T: 61-71
	NOMBRE	040	NOMBER	0/0	NUMBER NOMBRE	ONO	NUMBER	0/0	NUMBER	οNο	NUMBER	QVD	NUMBER NOMBRE	qip
-The daspe/Gaspe														
9-BONAVENTURE			1											
TOTAL	967,		41,121		+ 1,925	+ 4.9	42,962		+1,841	+ 4.5	41,700		-1,267	- 2.9
EMT/ALM	7,499 1	19.1	6,903	16.8	- 596	- 7.9	6,093	14.2	-810	- 11.7	6,135	14.7	+ 42	+ 0.7
FMT/FLM	30,796 7	78.6	33,332	81.1	+ 2,536	+ 8.2	35,857	83.5	+ 2,525	+ 7.6	34,505	82.7	- 1,352	1 3.8
22-GASPE-EST														
TOTAL	33,871		37,442		+3,571	+ 10.5	41,333		+3,891	4 10.4	41,730		+ 397	+ 1.0
EMT/ALM	7,537 2	22.3	7,042	18.8	- 495	9.9 -	6,424	15.5	- 618	80.	,15	14.7	-	4
FMT /FLM	26,303 7	77.7	30,368	81.1	+ 4,065	+ 15.5	34,754	84.1	+4,386	+ 14.4	4	85.0	\leftarrow	
-Southeast Québec Townships / Suget Cantons de 1'	and the dest du	Eastern Québec	c ru											
10-BROME														
TOTAL	12,485		13,393	-	+ 908	+ 7.3	13,691		+ 298	+ 2.2	15,310		+1,619	+11.8
EMT/ALM	6,834 5	54.7	6,984	52.1	+ 150	+ 2.2	7,175	52.4	+ 191	+ 2.7	7,690	50.2	+ 515	+ 7.2
FMT/FLM	5,485 4	13.9	6,073	45.3	+ 588	+10.7	2,990	43.8	1 83	- 1.4	7,095	46.3	+ 1,105	+ 18.4
11-CHAMBLY									Angeline (
TOTAL	32,454		77,931		+ 45,477	+140.1	146,745		+66,814	+ 88 .3	231,590		+84,845	+ 57.8
EMT/ALM	10,862 3	33.5	18,119	23.3	+ 7,257	+ 66.8	35,164	24.0	+17,045	+ 94.1	43,745	18.9	+ 8,581	+ 24.4
FMT/FLM	20,804 6	14.1	58,489	75.1	+37,685	+ 181.1	106,919	72.9	+ 48,430	+ 82.8	179,970	77.7	+73,051	+ 68.3
15-CHATEAUGUAY														
TOTAL	14,443		17,857		+ 3,414	+ 23.6	34,042		+16,185	9.06 +	53,740		+ 19,698	4 57.9
EMT/ALM	3,191 2	2.1	4,021 2	22.5	+ 830	+ 26.8	10,161	29.8	+ 6,140	+ 152.7	17,875	33.3	+ 7,714	+ 75.9
FMT/FLM	11,197 7	7.5	13,716 7	76.8	4 2,519	+ 22.5	22,815	67.0	660'6+	+ 66.3	33,970	63.2	+ 11,155	+ 48.9
17-COMPTON														
TOTAL	22,957		23,856		668 +	+ 3.9	24,410		+ 554	+ 2.3	21,365	."-	-3,045	- 12.5
EMT/ALM	6,009 2	26.2	5,391 2	22.6	- 618	-10.3	4,912	20.1	- 479	6.8	4,215	19.7	169 -	- 14.2
FMT/FLM	16,508 7	71.9	18,276 7	9.9/	4 1,768	+10.7	19,265	78.9	+ 988	+ 5.4	17,060	79.8	- 2,205	- 11.4

TABLE 10 (cont'd)

CENSUS DIVISION	1941		1951		CHANGE:	r:41-51	1961		CHANGE:	VT: 51-61	1971		CHANGE: CHANGEMENT	T: 61-71
	NUMBER NOMBRE	olb	NUMBER NOMBRE	de	NUMBER NOMBRE	de	NUMBER	θlo	NUMBER	OND.	NUMBER NOMBRE	qo	NUMBER NOMBRE	qlp
26-HUNTINGDON														
TOTAL	12,394		13,457		+1,063	9.8	14,752	_	41,295	4 9.6	15,360		¥ 608	+ 4.1
EMT/ALM	4,870	39.3	5,451 4	0.5	+ 581	+11.9	5,901	40.0	+ 450	+ 8 - 3	6,050	39.4	+149	+ 2.5
FMT/FLM	6,304	50.9	7,083 5	52.6	4 779	+12.4	7,580	51.4	+ 497	+ 7.0	8,155	53.1	+ 575	+ 7.6
35-LAPRAIRIE														
TOTAL	13,730		18,639		+4,909	+ 35.8	31,157		+12,518	+ 67.2	61,695		+30,538	+ 98.0
EMT/ALM	774	5.6	1,576	8.5	+ 802	+103.6	4,174	13.4	+ 2,598	+164.8	10,245	16.6	+ 6,071	+ 145.4
FMT/FLM	10,739	78.2	14,356 7	77.0	+ 3,617	+ 33.7	24,705	79.3	+10,349	+ 72.1	47,295	76.7	+ 22,590	+ 91.4
44-MISSISQUOI														
TOTAL	21,442		24,689		+ 3,247	+15.1	29,526		+4,837	+ 19.6	33,955		4 4,429	+15.0
EMT/ALM	5,927	27.6	5,699 2	3.1	- 228	3.8	6,328	21.4	+ 629	+ 11.0	6,635	19.5	+ 307	+ 4.9
FMT/FLM	15,190	70.8	18,584 7	5.3	+ 3,394	+22.3	22,373	75.8	+3,789	+ 20.4	26,530	78.1	4.4,157	+ 18.6
GWOWHOTGER														•
CONTRACTOR									,					
TOTAL	27,493		34,102		¢ 6,609	+24.0	42,232		+8,130	+ 23.8	41,040		- 1,192	- 2.8
EMT/ALM	4,884	17.8	7	15.5	+ 393	0.8	5,337	12.6	09 +	+ 1.1	4,770	11.6	- 567	- 10.6
FMT /FLM	22,501	81.8	28,683 8	4.1	+ 6,182	+27.5	36,624	86.7	+ 7,941	+ 27.7	36,080	87.9	- 544	1.5
59-ROUVILLE														
TOTAL	15,842		19,506		+3,664	+23.1	25,979		4 6,473	+ 33.2	31,760		+ 5,781	4 22.3
EMT/ALM	1,036	6.5	1,735	0.0	669 +	+ 67.5	3,504	13.5	+ 1,769	+ 102.0	3,915	12.3	+ 411	+ 11.7
FMT /FLM	14,769	93.2	17,694 9	7.06	+ 2,925	4 19.8	22,166	85.3	+ 4,472	+ 25.3	27,415	86.3	4 5,249	+ 23.7
65-SHERBROOKE														
TOTAL	46,574		62,166		+15,592	+33.5	80,490		+18,324	+ 29.5	101,470		+ 20,980	+ 26.1
EMT/ALM	10,113	21.7	11,199	0.8	4 1,086	+10.7	11,344	14.1	4 145	+ 1.3	11,130	11.0	- 214	- 1.9
FMT/FLM	35,901	77.1	50,4548	1.2	+14,553	+ 40.5	68,170	84.7	4 17,716	+ 35.1	89,165	87.9	+ 20,995	4 30.8
Cramomemo_C2														
	27 072		CN3 NC		7	0 00 00	0		41 452	C 4	376 36		170	C 4
TOTO T	No.		7 1		0,0		, 0 %	4	7 1 T	r (0710			° ·
EMT/ALM	8,575	30.7	2	9 • 7	~	4.0	8,318	23.0	- 21	0	7,93		00	9.4.
FMT /FLM	19,236	68.8	25,940 7	4.9	+ 6,704	+34.9	27,547	76.3	+1.607	+ 6.2	28,120	77.5	+ 573	4 2.1
										to-sufficient				

CENSUS DIVISION	1941		1951		CHANGEMENT	T: 41-51	1961		CHANGEMENT	NT: 51-61	1971		CHANGE: CHANGEMENT	NT. 61-7
DIVISION DE RECENSEMENT	NUMBER 8		NUMBER NOMBRE	QAO	NUMBER NOMBRE	c#F	NUMBER NOMBRE	qlo	NUMBER NOMBRE	qlp	NUMBER NOMBRE	qlp	NUMBER NOMBRE	qlo
iii-The Lower Ottawa	Valley eure de	1'Outaouais	ouais											
18-DEUX-MONTAGNES														
TOTAL	16,746	2	21,048		+ 4,302	+ 25.7	32,837		411,789	4 56.0	52,370		419,533	+ 59.5
EMT/ALM	1,228 7	7.3	2,249	10.7	4 1,021	+83.1	5,836	17.9	+ 3,637	+ 161.7	7,640	14.6	+ 1,754	+ 29.8
FMT/FLM	14,989 89	89.5	18,282	86.9	+ 3,293	+ 22.0	25,908	78.9	+ 7,626	+ 41.7	43,630	83.3	+17,722	4 68.4
51-PAPINEAU														
TOTAL	27,551	2	29,381		+ 1,830	9.9 +	32,697		4 3,316	+ 11.3	31,790		- 907	- 2.8
EMT/ALM	3,895 14	4.1	4,136	14.1	+ 241	+ 6.2	4,228	12.9	+ 92	+ 2.2	3,880	12.2	- 348	- 8.2
FMT/FLM	23,335 84	84.7 2	25,028	85.2	+ 1,693	+ 7.3	28,157	86.1	+ 3,129	+ 12.5	27,710	87.2	- 447	- 1.6
							-							
52-PONTIAC														
TOTAL	19,852	2	20,696		+ 844	+ 4.3	19,947		- 749	- 3.6	19,570		- 377	- 1.9
EMT/ALM	11,546 58	58.2	11,450	55.3	96 -	- 0.8	10,979	55.0	- 471	- 4.1	11,145	56.9	+ 166	+ 1.5
FMT/FLM	7,588 38	38.2	8,463	40.9	+ 875	+11.5	8,327	41.7	-136	- 1.6	7,895	40.3	- 432	- 5.2
68-TEMISCAMINGUE														
TOTAL	40,471	2	55,102		+14,631	+ 36.2	60,288		+5,186	4 9.4	54,660		- 5,628	- 9.3
EMT/ALM	5,504 13	13.6	7,625 1	13.8	+ 2,121	+ 38.5	6,440	10.7	-1,185	- 15.5	5,015	9.2	-1,425	- 22.1
FMT/FL,M	31,907 78	78.8 4	44,755 8	81.2	4 10,848	+ 40.3	50,948	84.5	+ 6,193	4 13.8	48,185	88.2	-2,763	- 5.4

Sources: Statistics Canada/Statistique Canada,

1941: Volume II. 1951: Volume I. 1961: Catalogue 92-529. 1971: Catalogue 92-773.

TABLE 10-A

THE BILINGUAL ZONE

POPULATION BY OFFICIAL LANGUAGES, FOR SELECTED CENSUS DIVISIONS, QUEBEC, 1941-1971

TABLEAU 10-A

LA ZONE BILINGUE
POPULATION SELON LES LANGUES OFFICIELLES,
DIVISIONS DE RECENSEMENT CHOISIES, QUEBEC,
1941-1971

61-71	qlo			2.9	4.2	5.5	5.		1.0	9.5	1.0	т. Ф			11.9	3.0	17.1	21.3		57.8	13.6	70.8	65.4		57.8	70.1	39.1	77.3
					+		+		+	1	+	+			+	+	+	+		+	+	+	+		+	+	+	+
CHANGE:	NUMBER			- 1,262	+ 213	-1,640	+ 415		+ 397	- 426	+ 301	+ 585			+ 1,624	+ 183	+ 590	+ 880		+84,845	+ 3,813	+ 48,579	+ 32,476		+19,693	+ 5,737	+ 6,067	+ 7,916
	ONO.				12.6	67.6	19.7			8	71.9	18.3				40.5	26.4	32.7			13.7	50.6	35.5			25.9	40.1	33.8
1971				41,700	5,260	28,195	8,205		41,730	4,070	30,005	7,650			15,315	6,210	4,050	5,010		231,590	31,795	117,155	82,160		53,735	13,920	21,570	18,160
T: 51-61	ФÞ			4 4.5	-13.4	9.6	- 1.6		+ 10.4	- 13.0	+ 18.3	- 1.4			+ 2.2	+ 1.4	- 3.9	+ 8.2		+ 85.7	+106.5	+ 84.1	+ 84.1		+ 90.6	+183.7	+ 53.3	+111.6
CHANGE: CHANGEMEN	NUMBER NOMBRE			+ 1,841	- 784	4 2,623	- 129		+ 3,891	699 -	+ 4,592	66 -			\$ 298	+ 82	- 142	+ 314		+ 66,814	+ 14,429	+31,320	+ 22,703		+16,185	+ 5,299	+ 5,392	+ 5,402
	9/0				11.7	69.4	18.1			10.9	71.9	17:1				44.0	25.3	30.2			19.1	46.7	33.9		-	24.0	45.5	30.1
1961	NUMBER NOMBRE			42,962	5,047	29,835	7,790		41,333	4,496	29,704	7,065			13,691	6,027	3,460	4,130		146,745	27,982	68,576	49,684		34,042	8,183	15,503	10,244
T:41-51	οΝΟ			4 4.9	-10.4	+14.9	-10.7		+ 10.5	0.9	+ 19.5	- 2.5			+ 7.3	- 2.8	+ 39.6	+1.1		4140.1	+ 56.8	+194.2	+142.9		+ 23.6	+ 19.4	+ 23,5	+ 26.1
CHANGE: CHANGEMENT	NUMBER NOMBRE			+1,925		4 3,532	- 953		+3,571	- 330	4 4,090	- 187			+ 908	- 171	+ 1,022	+ 40		+ 45,477	+ 4,907	+24,594	+15,873		+ 3,414	+ 468	+ 1,923	+ 1,003
	qlo				14.2	66.2	19.3			13.8	67.1	19.1				44.4	26.9	28.5			11.4	47.8	34.6			16.2	56.6	27.1
1951	NUMBER NOMBRE			41,121	5,831	27,712	7,919		37,442	5,165	25,112	7,164	rn		13,393	5,945	5,602	3,816		77,931	13,553	37,256	26,981		17,857	2,884	10,111	4,842
	qlo				16.6	60.4	22.6			16.2	62.1	21.7	Eastern ébec			49.0	20.7	30.2			26.6	39.0	34.2			16.7	56.7	26.6
1941	NUMBER			39,196	905,9	23,680	8,872		33,871	5,495	21,022	7,351	the du Qu		12,485	6,116	2,580	3,776		32,454	8,646	12,662	11,108		14,443	2,416	8,188	3,839
CENSUS DIVISION	ECENSEMENT	i-The Gaspé/Gaspé	9-BONAVENTURE	TOTAL	OL:EO/LO:AS	OL: FO/LO: FS	OL: E&F/LO: A&F	22-GASPE-EST	TOTAL	OL: EO/LO: AS	OL: FO/LO: FS	OL: E&F/LO: A&F	ii-Southeast Québec and Townships / Sud-est et Cantons de l'Est	10-BROME	TOTAL	OL: EO/LO:AS	OL: FO/LO:FS	OL: E&F/LO: A&F	11-CHAMBLY	TOTAL	OL: EO/LO:AS	OL: FO/LO:FS	OL: E&F/LO:A&F	15-CHATEAUGUAY	TOTAL	OL: EO/LO: AS	OL: FO/LO: FS	OL: E&F/LO:A&F

NT: 61-71			- 12.5	- 18.4	- 11.7	- 9.4		-	۰ ۰		00		α σ	00	67.			L		4.7.	12.		000		2 .			+ 22.2	2	c	4 72.0
CHANGE: CHANGEMEN	NUMBER NOMBRE		-3,045	- 686	- 1,777	- 515		4	•		2		430,533	4 38	.90	13,09		9	7515	- 109	1,30		- 1,187	06	0	-		+ 5,776	32	0	けっつつ
	OND			14.3	62.5	23.3			36.4	00			,	15.0	-	2			100		· m			6.1		m			9.1	0 89	0
1971	BE		21,365	3,050	13,350	4,970		15.360	5,58	38	5,380		61.690	9.23	96	0,21		0		00,	1,47		41.045	2.48	,74	9,81		31,755	80	21 875	011
T: 51-61	QP		+ 2.3	-13.0	+ 8.1	- 1.1		9 6	•		+ 12.7		+ 67.2	6	2				ם מ	23	20.		4 23.8	- 1		6		+ 33.2	+ 126.2	1 26 7	, O.
CHANGE:	NUMBER NOMBRE		+ 554	- 558	+ 1,127	- 61		+ 1.295	37	20	+ 558		+12.518	.61	00'	8		1 A 027	2017	57	1,73		+ 8.130	- 4		0		+ 6,473	+ 1,427	+ 3.775	
	QNP			15.3	62.0	22.5			38.3	9	33.6			15.6	H	22.9			7. 6	, 0	1 201			0.		21.9			8.6	0.69	۰
1961	民田		24,410	3,736	15,127	5,485		14,752	648	,932	4,954		31,157	849	090'	7,121		20 576	4 614	653	0,168		42,232	3,38	,544	240		25,979	2,558	17.931	-
NT:41-51	оно	1	6°E +	- 19.9	+ 22.0	- 9.3		9 8	4 2.8	+ 26.5	+ 5.5		+ 35.8	+ 51.8		\$ 39.5		1 5 4	7	• •	0	7	+ 24.0	+ 13.2	+43.0	- 5.4		+ 23.1	+ 71.9	+ 16.7	
😜	NUMBER		66 80	- 1,067	+ 2,527	- 570		+ 1,063	+ 142	+ 782	+ 231		4 4,909	+ 1,105	+ 2,526	+ 1,170		4 3 247	32	1 1	- 2		609'9	+ 400	+ 6,677	- 478		+ 3,664	+ 473	+ 2,024	•
	9/0			18.0	58.7	23.2			39.2	27.7	32.7			17.4	59.3	22.2			17.2					10.1	65.1	24.8			5.8	72.6	
1951	NUMBER NOMBRE		23,856	4	14,000	5,546		13,457	5,278	3,731	4,396		18,639	3,238	11,058	4,135		24.689	4.245	978	,432		34,102	35	22,205	8,450		19,506	1,131	14,156	
	96				50.0	26.6			41.4	23.8	33.6			15.5	62.1	21.6			21.3					11.0	56.5	32.5			4.2	76.7	
1941	NUMBER		756,27	5,36	,47	911/9		12,394	5,136	2,949	4,165		13,730	2,133	8,532	2,065		21.442	4,570	,403	458		27,493	3,035	15,528	8,928		15,842	658	12,132	
CENSUS DIVISION	DIVISION DE RECENSEMENT	17-COMPTON	TOTOT	OL:EO/LO:AS	OL:FO/LO:FS	OL:E&F/LO:A&F	26-HUNTINGDON	TOTAL	OL:EO/LO:AS	OL:FO/LO:FS	OL: E&F/LO: A&F	35-LAPRAIRIE	TOTAL	OL: EO/LO: AS	OL: FO/LO:FS	OL: E&F/LO:A&F	44-MISSISOHOI		OL: EO/LO: AS	OL: FO/LO: FS	OL: E&F/LO:A&F	56-RICHMOND	TOTAL	OL: EO/LO: AS	OL: FO/LO: FS	OL: E&F/LO:A&F	59-ROUVILLE	TOTAL	OL: EO/LO: AS	OL:FO/LO:FS	

DIVISION DE RECENSEMENT	-	4	TCGT		111111111111111111111111111111111111111	• 7 •	TOCT		CHANGEMENT		1971		CHANGEMENT	
	NUMBER	010	NUMBER NOMBRE	ONO.	NUMBER	ONP	民田	00	NUMBER	o _M o	m m	qlo	NUMBER NOMBRE	
65-SHERBROOKE														
TOTAL	46,574		62,166		+15,592	+33.5	80,490		+ 18,324	+ 29.5	101,470		+ 20,980	4 26.1
OL: EO/LO: AS	6,748 1	14.5	7,442 1	12.0	+ 694	+10.3	7,635	9.5	+ 193	+ 2.6	6,440	6.3	- 1,195	- 15.7
OL:FO/LO:FS	19,140 4	41.1	32,471 5	52.2	+ 13,331	9.69+	46,472 5	7.7	+ 14,001	+ 43.1	60,995	60.1	+14,523	+ 31.3
OL: E&F/LO: A&F	20,661 4	44.4	22,227 3	35.8	+ 1,566	+ 7.6	26,275 3	2.6	4 4,048	+ 18.2	33,975	33.5	4 7,700	+ 29.3
67-STANSTEAD														
TOTAL	27,972		34,642		4 6,670	+ 23.8	36,095		+ 1,453	+ 4.2	36,270		+ 175	+ 0.5
OL; EO/LO: AS	6,839 2	24.4	6,719	19.4	- 120	1.8	6,419 1	7.8		4.5	5,58	15.4	~	- 13.1
OL:FO/LO:FS	11,241 4	40.2	17,986 5	51.9	+ 6,745	+ 60.0	19,142 5	3.0	4 1,156	+ 6.4	20,190	55.7	4 1,048	+ 5.5
OL: E&F/LO: A&F	9,884	35.3	9,916 2	28.6	+ 32	- 0.3	10,509 2	1.6	+ 593	+ 6.0	10,485	28.9	- 24	- 0.2
iii-The Lower Ottawa La vallée infério	Valley eure de	Oute	l'Outaouais											
18-DEUX-MONTAGNES														
TOTAL	16,746		21,048		+ 4,302	+ 25.7	32,837		+ 5,186	4 9.4	52,370		+ 19,533	+ 59.5
OL: EO/LO:AS	984	5.9	1,716	8.2	+ 732	+ 74.4	4,919 1	5.0	+ 3,203	+ 186.7	5,565	10.6	+ 646	+13.1
OL: FO/LO:FS	13,018 7	77.7		71.9	+ 2,119	+ 16.3	,242 6	÷	,10	33	,45	2		0
OL: E&F/LO:A&F	2,662 1	15.9	4,127 1	19.6	+1,465	+ 55.0	7,591 2	3.1	+ 3,464	+ 83.9	14,330	27.4	+ 6,739	+ 88 * 8
51-PAPINEAU														
TOTAL	27,551		29,381		+ 1,830	9.9 +	32,697		+ 3,316	+ 11.3	31,795		- 902	- 2.8
OL: EO/LO: AS	2,770 10	0.1	2,730	9.3	- 40	- 1.4	- 64		+ 33	+ 1.2	39	7.5	- 373	- 13.5
OL:FO/LO:FS	17,181 6	62.4	18,454 6	62.8	+ 1,273	+ 7.4	20,388 6	2.4	+ 1,934	+ 10.5	19,460	61.2	- 928	- 4.6
OL: E&F/LO: A&F	7,592 2	27.6	8,189 2	27.9	+ 597	+ 7.9	9,502 2	1.6	4 1,313	+ 16.0	9,940	31.3	+ 438	4 4.6
52-PONTIAC					4+13									
TOTAL	19,852		20,696		+ 844	+ 4.3	19,947		- 749	- 3.6	19,570		- 377	1.9
OL: EO/LO: AS	11,202 56	6.4	10,934 5	52.8	- 268	- 2.4	0,35	1.9	- 582	- 5.3	9,885	50.5	9	- 4.5
OL:FO/LO:FS	2,574 1	13.0	3,716	18.0	+ 1,142	+ 44.4	3,442 1	7.3	- 274	- 7.4	2,870	14.7	- 572	- 16.6
OL: E&F/LO: A&F	6,058 30	0.5	5,833 2	28.2	- 225	- 3.7	5,969 2	6.6	+ 136	4 2.3	6,645	34.0	+ 676	+ 11.3
68-TEMISCAMINGUE														
TOTAL	40,471		55,102		+14,631	+ 36.2	60,288		4 5,186	+ 9.4	54,655		- 5,633	- 9.3
OL: EO/LO:AS	6,681 16	6.5	7,474 1	13.6	+ 793	+ 11.9	6,045 1	0.0	- 1,429	- 19.1	3,755	6.9	- 2,290	- 37.9
OL:FO/LO:FS	22,318 5	55.1	32,614 5	59.2	+ 10,296	+ 46.1	37,680 6	2.5	4 5,066	+ 15.5	35,440	64.8	- 2,240	- 5.9
OL: E&F/LO: A&F	11,206 27	7.7	14,562 2	26.4	+ 3,356	+ 29.9	16,183 2	8.9	+ 1,621	+ 11.1	15,405	28.2	- 778	1 4.8

Sources: Statistics Canada/Statistique Canada,
1941: Volume II.
1951: Volume I.
1961: Catalogue 92-549.
1971: Catalogue 92-726

TABLE 10-B

THE BILINGUAL ZONE POPULATION BY OFFICIAL LANGUAGES, FOR SELECTED CENSUS DIVISIONS, ONTARIO, 1941-1971

LA ZONE BILINGUE TABLEAU 10-B

POPULATION SELON LES LANGUES OFFICIELLES, DIVISIONS DE RECENSEMENT CHOISIES, ONTARIO, 1941-1971

r: 61-71	qlo			α ~	•	• (9		*,431.1	30.	m	•		+ 2.2	2.		+13.5		* 722.4	52.		+ 49.3		7			
CHANGE: CHANGEMENT	NUMBER NOMBRE			- 737	~	6	2		+109,718	,243	00			+ 604	1500		4 1,630		+ 4,678 [**	+ 2,135		+ 3,939		+3.433	52	- 93	5
	qlo				44.5	9.7			*	68.89	m	26.5			11.7	39.1	49.2		*	24.2	32.1	43.5			54.7	5	•
1971	NUMBER			18,480	8,225	79	,43		462,650	00	17,005	122,500		27,830	3,260	10,880	13,685		25,570	6,200	8,215	11,135		61,300	3.510	3,205	50
T: 51-61	qlb			9.8	٠ 1	26.			+ 45.7	+ 49.6	+ 23.5	+ 35.8		+ 6.5	+ 1.8	+ 1.6	+12.5		+ 18.3	+ 43.6	1.3	+ 34.4		+ 19.4		6	+ 23.4
CHANGE: CHANGEMENT	NUMBER NOMBRE			4 1,515	+ 681	+ 492	+ 323		+110,685	+ 81,099	+ 2,855	+ 23,561		+1,650	+ 59	+ 183	+ 1,337		+ 3,226	+ 1,235	- 1111	+ 2,046		4 9,409	. 79	37	+ 4,075
	OND.				46.1	12.4	41.2			69.3	4.3	25.3			12.3	43.0	44.3			19.5	41.9	38.3			55,3	7 .	37.1
1961	NUMBER			19,217	8,859	2,382	7,910		352,932	244,597	15,003	89,440		27,226	3,345	11,718	12,055		20,892	4,065	8,753	7,996		57,867	31,985	4,143	21,494
Tr: 41-51	οlo			- 5.5	-10.6	+ 30.3	- 6.7		+ 19.6	+21.6	+ 37.3	+11.5		+ 1.2	- 2.3	+ 3.5	- 0.3		+ 1.2	- 5.0	+ 8.5	5.6		+ 18.5	+ 12.0	+ 44.3	+ 25.6
CHANGE: CHANGEMENT	NUMBER NOMBRE			- 1,030	- 965	+ 439	- 548		+39,727	+ 29,079	+ 3,297	+ 6,787		+ 315	- 78	+ 393	- 28		+ 218	- 148	969 +	- 354		+ 7,553	+ 2,916	+ 1,158	+ 3,552
	qlo				46.2	10.7	42.9			67.5	5.0	27.2			12.8	45.1	41.9			16.0	50.2	33.7			56.1	7.8	35.9
1951	NUMBER	0		17,702	8,178	1,890	7,587		242,247	163,498	12,148	62,879		25,576	3,286	11,535	10,718		17,666	2,830	8,864	5,947		48,458	27,195	3,770	17,419
	οNο	'Ontario	substanting.		48.8	7.7	43.4			66.4	4.4	9.2			13.3	44.1	42.5			17.1	46.8	36.1			59.4	6.4	33.9
1941	NOMBER	de 1		18,732	9,143	1,451	8,135		202,520	134,419	8,851	59,092 2		25,261	3,364	11,142	10,741		17,448	2,978	8,168	6,301		40,905	24,279	2,612	13,867
CENSUS DIVISION	DIVISION DE RECENSEMENT	i-Eastern Ontario/Est	11-GLENGARRY	TOTAL	OL: EO/LO: AS	OL: FO/LO: FS	OL: E&F/LO: A&F	33-OTTAWA-CARLETON	TOTAL	OL: EO/LO:AS	OL: FO/LO:FS	OL: E&F/LO:A&F	39-PRESCOTT	TOTAL	OL: EO/LO:AS	OL: FO/LO:FS	OL: E&F/LO:A&F	43-RUSSELL	TOTAL	OL: EO/LO: AS	OL:FO/LO:FS	OL: E&F/LO:A&F	45-STORMONT	TOTAL	OL: EO/LO: AS	OL: FO/LO:FS	OL: E&F/LO:A&F

10-B

TABLE

Sources: Statistics Canada/Statistique Canada,

1941: Volume II. 1951: Volume I. 1961: Catalogue 92-549. 1971: Catalogue 92-726 census subdivision of Cumberland (Ottawa-Carleton, 1971) of Russell, of which it was part before the 1971 Census. For comparision purposes only, the is included in the census division

À la seule fin de comparaison, la subdivision de recensement de Cumberland (Ottawa-Carleton, 1971) est incluse dans la division de recensement de Russell dont elle faisait partie avant le recensement de 1971.

French mother tongue had been increasing steadily since 1941 in proportion to the total population. To the west of these four counties the same process was apparent in Missisquoi County, although the change was not as intense (table 10).

The four counties of Rouville, Châteauguay, Laprairie and Huntingdon that bordered or were partially within the census metropolitan area of Montreal experienced a growth in the ratio of people of English mother tongue to the total population and, except for Huntingdon county, a decline in the percentage of the population of French mother tongue.

The census metropolitan area of Montreal was incorporated into the bilingual zone because of the difficulty of assigning only some components to the French language The computer maps of the distribution of the populations of English and French mother tongue illustrated the strong concentration of the latter in an arc around the north end of the C.M.A. (figs. 9 and 10). Not all of the components within this arc attained ninety per cent or greater in the percentage of French-home-language population to total population nor .90 or over in the index of French language intensity. The C.M.A. was highly fragmented when these variables were applied, and for that reason and because of the dynamic nature of the metropolitan area, no attempt was made to delimit a boundary through this urban area. The metropolitan city of Montreal was considered a unique part of the bilingual zone and required particular treatment to ascertain the changes in the language communities within the urban limits. Such analysis was beyond the purview of this study.

Summary

In this Reference Supplement the country was divided into language zones according to the dominant linguistic characteristic of each region. In the delimitation of these zones reliance was placed upon language data that related to usage in the home and to that portion of the population who were unilingual French or English. The reliability of data on the bilingual population of Canada was low but greater accuracy was assumed for the interzonal region that existed between the French language zone and the English language zones of the Atlantic provinces and Ontario. This discontinuous area was regarded as the bilingual zone of Canada: a zone that had been a frontier of contact, and occasional conflicts, between people of the two official languages.

Beyond this zone, to the east and west, the minority language communities existed as language islands in English language zones that were either ethnically homogeneous (eastern Canada) or heterogeneous (western Canada). The feature of gradation from one language zone, that of the French, into the other language zone, the English, and some cultural elements of the respective unilingual zones, were analyzed in the Atlantic provinces of Canada. It is this region which, since it provided some of the characteristics for the three zones, served as the example for the work of the Board.

TABLE 11

THE BILINGUAL ZONE

POPULATION BY MOTHER TONGUE, FOR SELECTED CENSUS DIVISIONS, ONTARIO, 1941-1971

LA ZONE BILINGUE

TABLEAU 11

POPULATION SELON LA LANGUE MATERNELLE, DIVISIONS DE RECENSEMENT CHOISIES, ONTARIO, 1941-1971

NOVERSE NOVE	CENSUS DIVISION	1941	1951		<u>[</u>]	NT: 41-51	1961		CHANGE: CHANGEMENT	T: 51-61	1971		CHANGE: CHANGEMENT	NT: 61-71
	RECENSEMENT	NOMBRE 8	NOMBEE		NUMBER NOMBRE	olo	NUMBER NOMBRE	qlo	NUMBER NOMBRE	dlo	NUMBER	qlp	NUMBER NOMBRE	qlP
18,732 8,736 46.6 8,533 48.72 49.516 49.55 49.52 49.736 49.55 49.736 49.55 49.736 49.737 49.738 49.737 49.738 49.737 49.738 49.737 49.738 49.737 49.738 49.737 49.738	i-Eastern Ontario/E	de 1	ijo											
18,732 17,702 17,702 17,702 17,702 17,703 1	11-GLENGARRY													
9,495 50.7 8,794 49.7 - 701 - 7.4 9,516 49.5 + 722 + 8.2 9,790 53.0 + 274 + 2.2 8,736 46.6 8,533 48.2 - 203 - 2.3 9,133 47.5 + 600 + 7.0 8,165 44.2 - 968 -10. 202,520 5.8 10,506 70.4 + 33.256 + 24.2 244,058 69.2 + 73,552 + 43.1 329,420 71.2 + 85,362 + 8.3 137,250 67.8 10,506 70.4 + 33.256 + 24.2 244,058 69.2 + 73,552 + 43.1 329,420 71.2 + 85,362 + 8.3 25,261 7.6 6,18 10,506 70.4 + 33.256 + 24.2 244,058 69.2 + 73,552 + 43.1 329,420 71.2 + 85,362 + 8.3 25,261 7.6 6,18 10,506 70.4 + 33.256 + 24.2 244,058 69.2 + 73,552 + 43.1 329,420 71.2 + 85,362 + 8.3 25,261 7.6 6,18 10,506 70.4 + 33.256 + 24.2 24,018 12.0 17,650 + 6.5 27,830 25,261 7.6 6,18 10,506 70.4 + 33.256 + 2.9 2,491 82.6 11,555 + 5.9 24,91 25,261 7.6 6,18 10,506 70.4 + 33.2 1 + 1.2 27,226 25,261 7.6 6,18 10,506 70.4 + 3.2 18 + 1.2 27,226 26,364 10.7 11,666 26,307 10.5 8.3 14,435 81.7 27,264 11,531 1 + 1.2 27,226 28,330 19.5 8,18 1 28,431 89.4 88,458 28,431 89.4 8,468 8 28,431 89.4 8,468 8 28,432 89.7 28,431 89.4 8,468 8 28,432 89.8 28,433 89.8 28,433 89.8 28,434 89.455 89.8 28,435 89.8 28,436 89.8 28,436 89.8 28,437 89.8 28,438 89.455 89.8 28,439 89.7 28,439 89.7 28,431 89.8 28,438 89.455 89.8 28,439 89.7 28,431 89.8 28,439 89.7 28,431 89.8 28,430 89.8 28,430 89.8 28,430 89.8 28,430 89.8 28,430 89.8 28,430 89.8 28,430 89.8 28,431 89.8 28,431 89.8 28,431 89.8 28,432 89.8 28,433 89.8 28,433 89.8 28,434 89.455 89.8 28,434 89.455 89.8 28,435 89.45 28,431 89.8 28,431 89.8 28,431 89.8 28,431 89.8 28,432 89.45 28,433 89.45 28,433 89.45 28,434 89.45 89.4 28,435 89.45 28,431 89.8 28,431 89.8 28,431 89.8 28,432 89.45 28,433 89.45 28,434 89.45 89.4 28,435 89.45 28,431 89.8 28,431 89.8 28,431 89.8 28,432 89.4 39,434 89.4 39,434 89.4 39,434 89.4 39,434 89.4 39,434 89.4 39,434 89.4 39,434 89.4 39,434 89.1 39,434 89.1 39,434 89.1 3	TOTAL	18,732	17,702				9,21		1,51	00	00		- 737	3.8
8,736 46.6 8,533 48.2 - 203 - 2.3 9,133 47.5 + 600 + 7.0 8,165 44.2 - 968 - 10. 202,520 50.58 57.9 57.8 170,506 70.4 +33,256 +24.2 244,058 69.2 + 73,552 + 43.1 322,420 71.2 + 85,362 + 85.56 5.5 56,586 27.9 53.118 26.1 + 6,532 + 11.5 80,941 22.9 + 17,823 + 28.2 87,770 19.0 + 6,829 + 8. 25,561 7.9 53.118 26.1 + 6,532 + 11.5 80,941 22.9 + 17,823 + 28.2 87,770 19.0 + 6,829 + 8. 25,261 7.4 52 17.6 4,169 16.3 - 283 - 6.4 4 4455 16.2 + 246 + 5.9 4,910 17.6 + 495 + 111. 20,642 81.7 21,236 83.0 + 594 + 2.9 22,491 82.6 + 1,255 + 5.9 22,586 81.2 + 104 + 0. 20,642 81.7 21,236 81.7 + 429 + 3.1 16,166 77.4 + 1,731 + 12.0 17,850 69.8 + 1,688 (*)+22.2 17,85	EMT	20				- 7.4	,51	6	72		No.	m	+ 274	
25,286 27.9 67.8 170,506 70.4 +39,727 +19.7 352,932	FMT			48.2	- 203		,13	7.	0		,16	4.	9	0
25,566 27.9 63,118 26.1 + 53,727 + 19.7 352,932	33-OTTAWA-CARLETON													
137,256 67.8 170,506 70.4 433,256 +24.2 244,058 69.2 +73,552 +43.1 329,420 71.2 +85,362 +85,362 +85,562	TOTAL	202,520	242,247		+39,727	19.	52,93		110,68	45.	62,63		109,70	+31.
56,586 27.9 63,118 26.1 + 6,532 + 11.5 80,941 22.9 + 17,823 + 28.2 87,770 19.0 + 6,829 + 8. 25,261	EMT/ALM	37,250 67.			+33,256	4.	44,05	6	73,55	m	29,420	-	85,36	+35.
25,261 4,452 17.6 4,462 17.6 4,169 16.3 -283 -6.4 4,415 10.2 + 246 + 5.9 4,910 17.6 + 495 + 11. 20,642 117,448 17,256 19.5 3,140 17,666 17,44 17,131 18,26 18,36 19.5 18,416 19.5 20,492 19.4 19.6 19.6 19.7 19.4 19.6 19.7 19.6 19.7 19.7 19.8 19.7 19.8 19.8 19.8 19.8 19.8 19.8 19.8 19.8	FMT/FLM	586	63,118	26.1		-	0,94	2.	7,82	00	7,770	6	,82	
25,261 4,452 17.6 4,169 16.3 -283 -6.4 4,415 16.2 + 246 +5.9 4,910 17.6 + 495 +111. 20,642 81.7 21,236 83.0 +594 +2.9 22,491 82.6 +1,255 +5.9 22,595 81.2 +104 +0. 17,448	39-PRESCOTT													
4,452 17.6 4,169 16.3 -283 -6.4 4,415 16.2 +246 +5.9 4,910 17.6 +495 +10.	TOTAL	25,261	25,576				7,22		1,6	0	7,83		0	2.
20,642 81.7 21,236 83.0 +594 +2.9 22,491 82.6 +1,255 +5.9 22,595 81.2 +104 +0.0 17,448	EMT/ALM	17		0	- 283		,41	9	24		,910	7.	9	i
17,448 17,666 1,418 17,666 1,418 1,518 1,519 1,5	FMT/FLM	2	21,236	83.0		2.	2,491	2	,25	5	2,595	i.	0	0.
17,448	43-RUSSELL													-
3,397 19.5 3,140 17.8 - 257 - 7.6 4,196 20.1 + 1,056 + 33.6 7,125 27.9 + 2,929 + 69. 14,006 80.3 14,435 81.7 + 429 + 3.1 16,166 77.4 + 1,731 + 12.0 17,850 69.8 + 1,684 + 10. 40,905 48,458 + 7,553 + 18.5 57,867 + 9,409 + 19.4 61,300 49.1 + 3,433 + 5. 24,311 59.4 28,939 59.7 + 4,628 + 19.0 34,416 59.5 + 5,477 + 18.9 38,460 62.7 + 4,044 + 11. 15,230 37.2 18,245 37.7 + 3,015 + 19.8 21,206 36.6 + 2,961 + 16.2 20,605 33.6 - 601 - 2. Ontario/Nord de l'ontario 80,730 83,850 + 3,120 + 3,120 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 1.3 33,471 41.5 34,498 41.1 + 1,027 + 3.1 4.147 46.1 + 6,638 + 17.7 47,000 49.1 + 2,953 + 6.	TOTAL	17,448	17,666				0,89		,22	00	5, 58		.68	+22.
14,006 80.3 14,435 81.7 + 429 + 3.1 16,166 77.4 + 1,731 + 12.0 17,850 69.8 + 1,684 + 10. 40,905 24,311 59.4 28,939 59.7 + 4,628 + 19.0 34,416 59.5 + 5,477 + 18.9 38,460 62.7 + 4,044 + 11. 15,230 37.2 18,245 37.7 + 3,015 + 19.8 21,206 36.6 + 2,961 + 16.2 20,605 33.6 - 601 -2. Ontario/Nord de l'Ontario 80,730 83,850 4.11 + 1,027 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 1.3 37,728 39.3 37,509 44.7 + 5,781 + 18.2 44,147 46.1 + 6,638 + 17.7 47,000 49.1 + 2,953 + 6.	EMT/ALM	19.	3,140	17.8	- 257	- 7.6	No.	0	10	m	,125	7.	.92	69
40,905 24,311 59.4 28,939 59.7 + 4,628 + 19.0 34,416 59.5 + 5,477 + 18.9 38,460 62.7 + 4,044 + 11. 15,230 37.2 18,245 37.7 + 3,015 + 19.8 21,206 36.6 + 2,961 + 16.2 20,605 33.6 - 601 - 2. Ontario/Mord de l'Ontario 80,730 83,850 + 3,120 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 1.0 33,471 41.5 34,498 41.1 + 1,027 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 1.0 31,728 39.3 37,509 44.7 + 5,781 + 18.2 44,147 46.1 + 6,638 + 17.7 47,000 49.1 + 2,953 + 6.	FMT/FLM		14,435	81.7		0	6,16	7.	,73	2	7,850	9	. 68	0
40,905 48,458	45-STORMONT													
24,311 59.4 28,939 59.7 + 4,628 + 19.0 34,416 59.5 + 5,477 + 18.9 38,460 62.7 + 4,044 + 11. 15,230 37.2 18,245 37.7 + 3,015 + 19.8 21,206 36.6 + 2,961 + 16.2 20,605 33.6 - 601 - 2. Ontario/Nord de l'Ontario 80,730	TOTAL	40,905	48,458		+ 7,553	00	7,86		,40	.19.	- 10		, 43	5
15,230 37.2 18,245 37.7 + 3,015 + 19.8 21,206 36.6 + 2,961 + 16.2 20,605 33.6 - 601 - 2. Ontario/Nord de l'Ontario 80,730	EMT/ALM	59.				19.	4,416	9	,47	00	8,460	2	,04	11.
Ontario/Nord de l'Ontario 80,730 80,730 81,4498 41.1 + 1,027 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 1.1 31,728 39.3 37,509 44.7 + 5,781 + 18.2 44,147 46.1 + 6,638 + 17.7 47,000 49.1 + 2,953 + 6.	FMT/FLM	5,230 37	18,24	37.7	m	6	1,206	9	96'	16.	0,605	ω,	9	
Ontario/Nord de l'Ontario Ontario/Nord de l'Ontario B0,730								-						
80,730 83,850 + 3,120 + 3.9 95,666 +11,816 +14.1 95,840 + 174 + 0. 33,471 41.5 34,498 41.1 +1,027 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 1. 31,728 39.3 37,509 44.7 +5,781 +18.2 44,147 46.1 +6,638 +17.7 47,000 49.1 + 2,953 + 6.		de	tario											
IM 33,471 41.5 34,498 41.1 + 1,027 + 3.1 37,734 39.4 + 3,236 + 9.4 38,455 40.1 + 721 + 721 + 1.1 IM 31,728 39.3 37,509 44.7 + 5,781 + 18.2 44,147 46.1 + 6,638 + 17.7 47,000 49.1 + 2,953 + 6.	4-COCHRANE													
33,471 41.5 34,498 41.1 +1,027 +3.1 37,734 39.4 +3,236 + 9.4 38,455 40.1 + 721 +1. 31,728 39.3 37,509 44.7 +5,781 +18.2 44,147 46.1 +6,638 +17.7 47,000 49.1 +2,953 +6.	TOTAL	80,730	83,850				5,66		11,81	14.	5		17	
31,728 39.3 37,509 44.7 + 5,781 + 18.2 44,147 46.1 + 6,638 + 17.7 47,000 49.1 + 2,953 + 6.	EMT/ALM	,471 41.		41.1	+ 1,027	0	7,734	6	, 23		8,455	0	2	
	FMT/FLM	,728 39.	37	0		00	4,147	9	, 63	17.	7,000	9	, 95	

TABLE 11 (cont'd)

TABLEAU 11 (suite)

-71			11.8	9.7	1.9	 	9.4	2.5	6.3		00	4.7	4.7	
19:LNI	qlo		+	+	+		+	+	+		1	1	1	
CHANGE: CHANGEMENT	NUMBER NOMBRE		+ 8,297	+ 8,113	+ 477		+ 32,218	+ 26,866	+ 8,955		- 4,486	- 1,487	- 642	
	QPP			62.4	32.8			55.2	32.3			65.2	27.9	
1971	NUMBER NOMBRE		78,865	49,230	25,885		198,080	109,425	63,895		46,485	30,315	12,975	
T: 51-61	ONO		+ 39.7	+ 57.1	+ 18.5		+ 51.3	+ 58.2	+ 37.9		+1.9	- 2.8	+17.0	
CHANGE:	NUMBER NOMBRE		+ 20,051	+ 14,945	+ 3,973		+ 56,272	+30,385	+15,097		+ 955	- 917	+ 1,983	
	αKo			58.3	36.0			49.8	33.1			62.4	26.7	
1961	NUMBER NOMBRE		70,568	41,117	25,408		165,862	82,559	54,940		50,971	31,802	13,617	
T: 41-51	QP		+ 16.6	+ 30.9	+ 4.8		+35.6	+ 52.2	+31.7		-1.2	-1.0	+13.8	
CHANGE:	NUMBER NOMBRE		+7,202	+ 6,175	+ 982		+28,775	+17,894	+ 9,581		- 588	-323	+1,411	
	040			51.8	42.4			47.6	36.4	 		65.4	23.3	
1951	NUMBER NOMBRE		50,517	26,172	21,435		109,590	52,174	39,843		50,016	32,719	11,634	
	0/0			46.2	47.2			42.4	37.4			65.3	20.2	
1941	NUMBER NOMBRE		43,315	19,997	20,453		80,815	34,280	30,262		50,604	33,042	10,223	
CENSUS DIVISION	DIVISION DE RECENSEMENT	29-NIPISSING	TOTAL	EMT/ALM	FMT/FLM	46-SUDBURY	TOTAL	EMT/ALM	FMT /FLM	48-TIMISKAMING	TOTAL	EMT/ALM	FMT/FLM	

Sources: Statistics Canada/Statistique Canada,

1941: Volume II. 1951: Volume I. 1961: Catalogue 92-529. 1971: Catalogue 92-773.

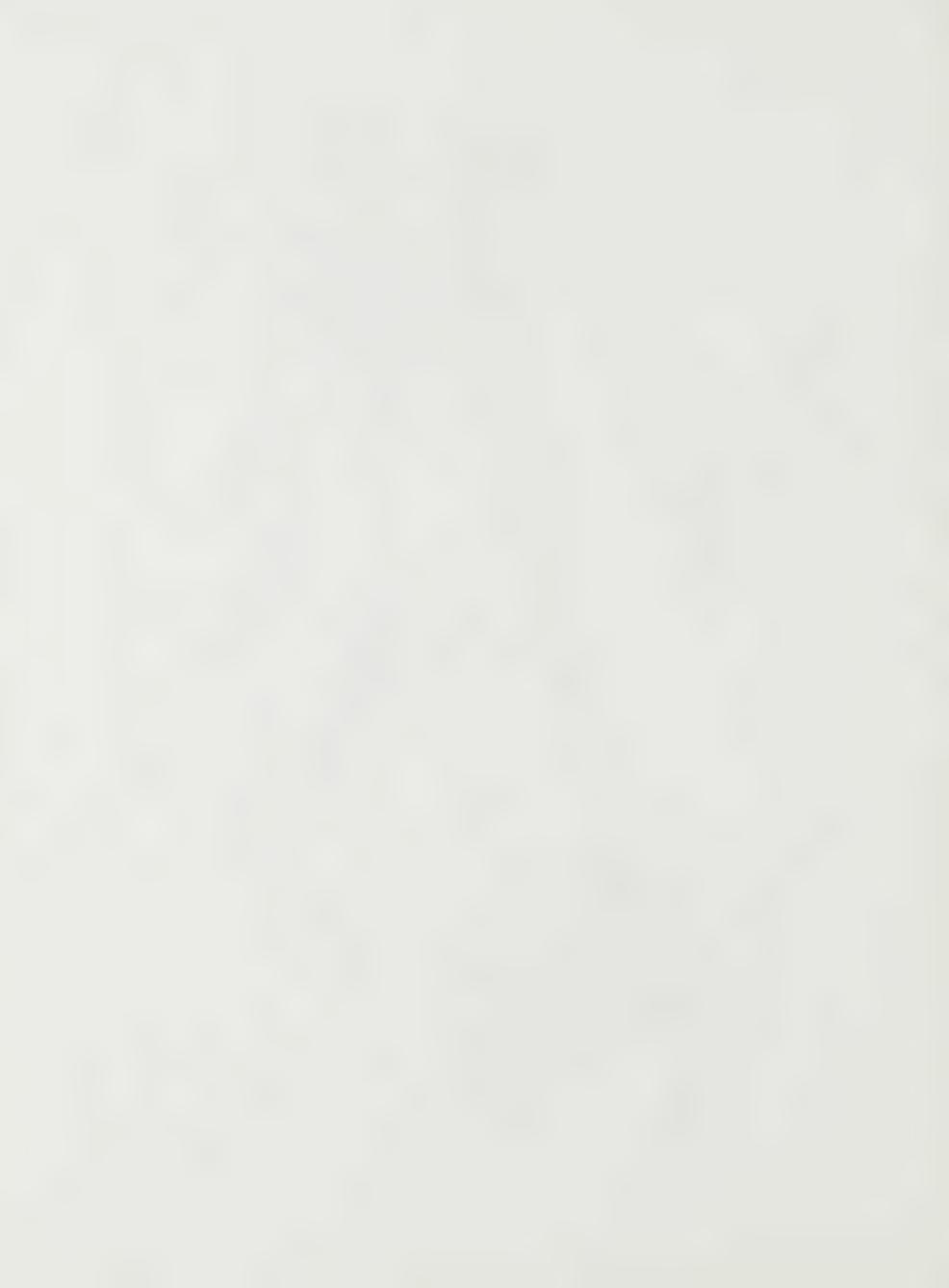
(*): For comparisons purposes only, the census subdivision of Cumberland (Ottawa-Carleton, 1971) is included in the census division of Russell, of which it was part before the 1971 Census.

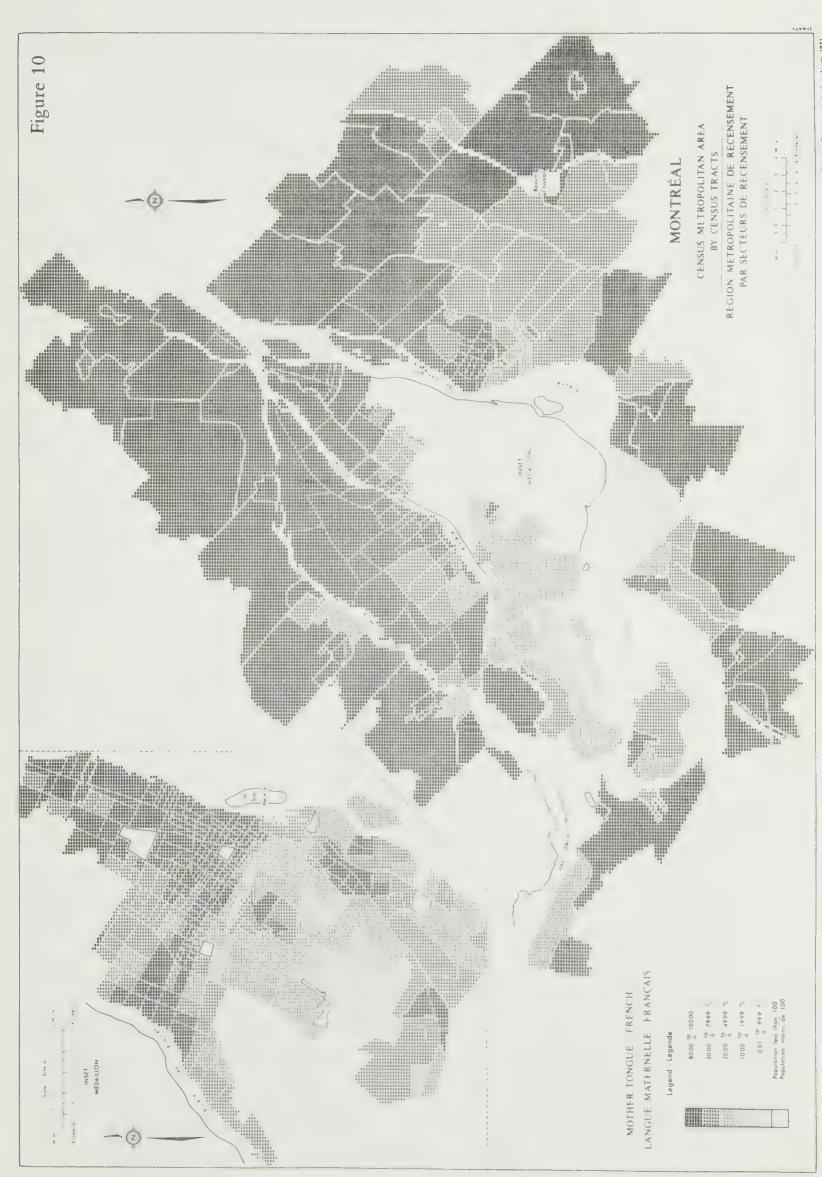
A la seule fin de comparaison, la subdivision de recensement de Cumberland (Ottawa-Carleton, 1971) est incluse dans la division de recensement de Russell dont elle faisait partie avant le recensement de 1971.



Source 1971 Centus of Canada Produced by the Geography Section Centus Divisiur Statelits Com

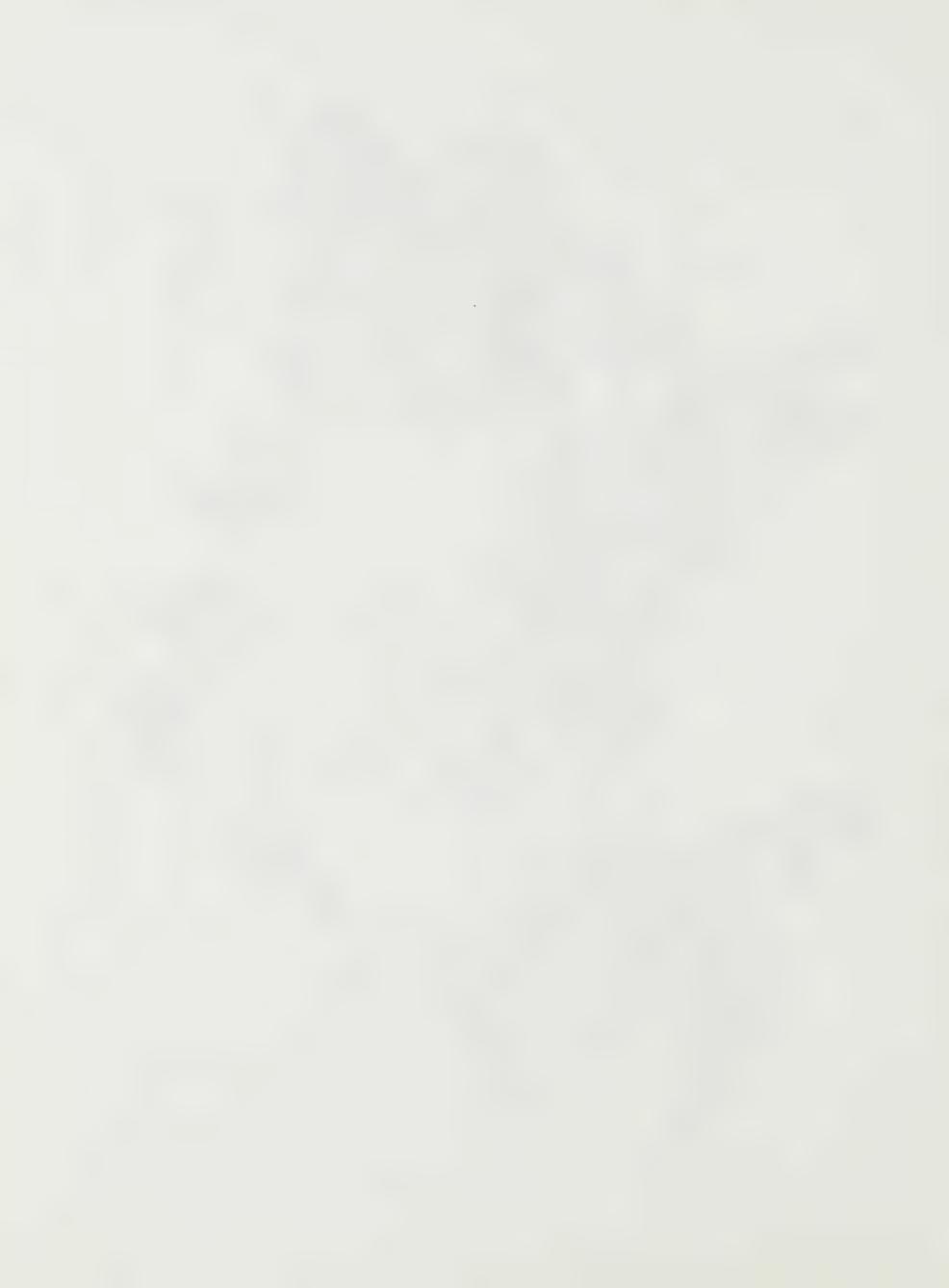
Établie por a Section de geographie. Oivision du recensement Statistique Canad





Source 1971 Census of Canado Produced by the Geography Section Census Division Statistics Canada

Établie par la Section de geographie. Division du recensement Statistique Canada



Chapter III

THE ATLANTIC REGION

An Introduction

Fragmented is a term that has often been applied to the Atlantic Region of Canada; fragmented geographically, politically and socially. It is a foreland of disrupted land surfaces where uplands have been barriers between the population clusters that were located within the valleys and along the coasts. Often the transitions from these lowlands to the upland zones are very abrupt. The scarcity of good agricultural land away from the coast also contributed to the peripheral distribution. Such restrictions upon settlement expansion had also been a barrier to transportation routes that could create linkages among a dispersed population. Hence the main pockets of settlement developed where good harbours became the nexus between important inland water transportation routes and offshore fishing grounds.

This nodality and peripheral settlement, and the difficulties encountered in overland transportation and communication, facilitated a cultural isolation for many ethnic communities. Such a pattern was an aid to the Acadians who re-established themselves in several locations in the Maritimes after 1765. The most notable of these scattered enclaves, because of the size of the settlements, were in Eastern New Brunswick and in Clare municipality in Nova Scotia. During the first half of the nineteenth century, the Acadians maintained their settlements at a time when British settlers had started to leave the region in large numbers. Able to avoid conflict and competition with their English-speaking

neighbours, the Acadians preserved their identity and mother tongue through home and church education¹. In spite of this tenacity there were indications that the Acadians were beginning to succumb to the forces that eroded the cultural identity of other ethnic groups within the Atlantic Region². For example, the province of Nova Scotia had the highest percentage of people of "other" ethnic origin (i.e. other than British or French) in the Atlantic region (table 12). However, of the Nova Scotians who declared that they had a mother tongue "other" than English or French, fewer than half (49.8%) were still using their mother tongue as the language of the home.

Language Zones in the Atlantic Provinces

The Atlantic region of eastern Canada contained part of all three language zones that were discussed in Chapter II. In northern New Brunswick the county of Madawaska and the northern census subdivisions in Gloucester County (fig. 11) could have been placed within the French language zone. Within the latter, seven of the ten census subdivisions had a ratio of French home-language population to total population of ninety per cent or more. The total population of these seven subdivisions, concentrated in the eastern half of the county, constituted just over half (52%) of the entire population of

^{1.} Erskine, D., "The Atlantic Region", In Warkentin, J., Canada: A Geographical Interpretation, Methuen Publishing Company, Toronto, 1968.

^{2.} Mannion, J.J. Irish Settlements in Eastern Canada: A Study of Cultural Transfer and Adaptation, University of Toronto Press, Toronto, 1974. See also, Harris, R.C. and Warkentin, J., Canada Before Confederation, Oxford University Press, Toronto, 1974 (see particularly chapter 5, "The Atlantic Region").

TABLE 12

Origin,	
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- ; ;	
Ö	197
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Ethnic	Provinces
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Ψ.	Н
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Population	Atlantic
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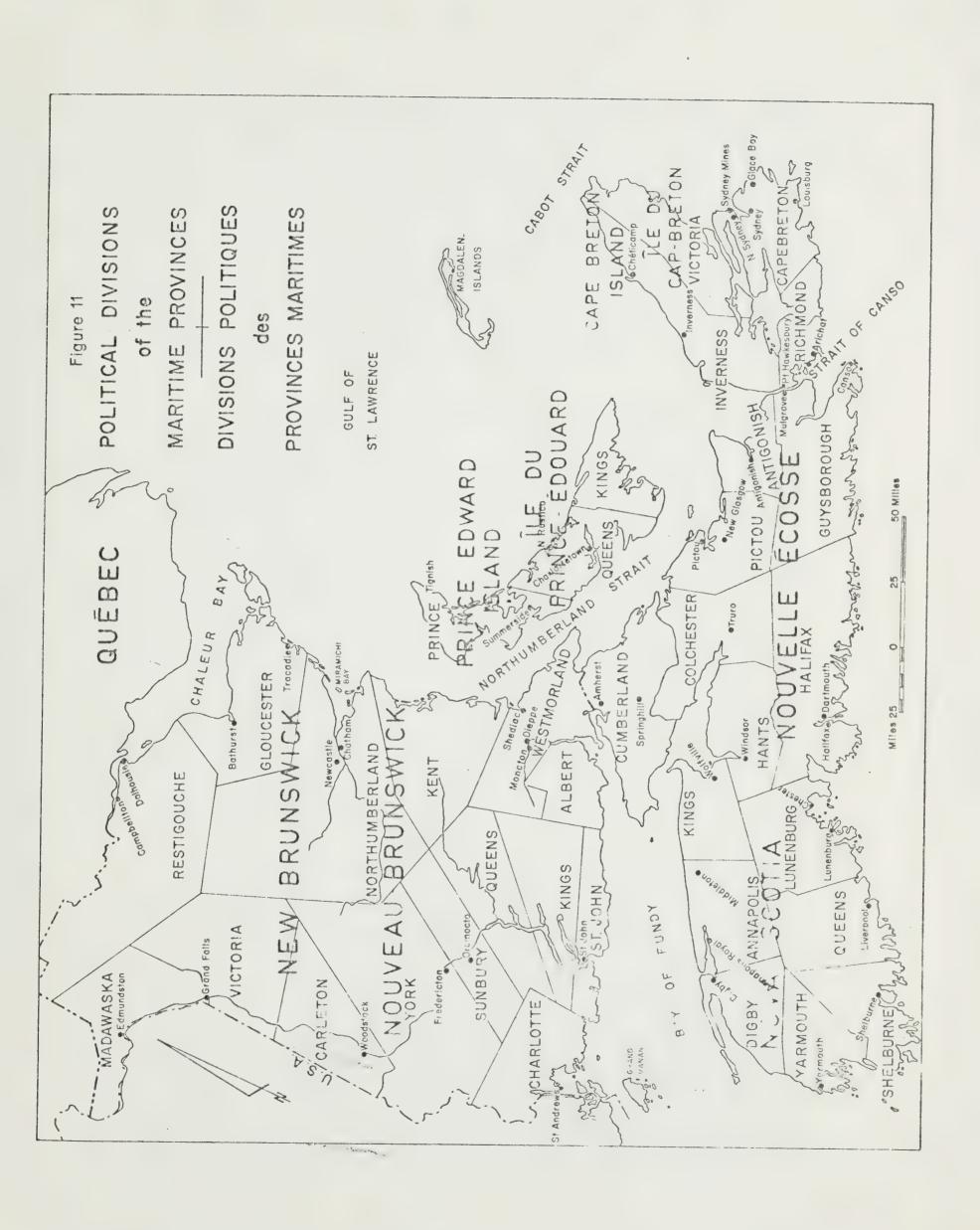
Population selon l'origine ethnique, Provinces Atlantiques, 1971

TABLEAU 12

	Newfoundland Terre-Neuve	dland	P.E.I. IPE.		Nova Scotia	tia	New Brunswick	wick	Atlantic	
						ממ	NOUVEAU-BrunsWick	nswick	Atlantiques	ies
	Total	0/0	Total	ογo	Total	ONP	Total	OHP	Total	qlo
Total										
Population totale	522,110	100.0	111,640	100.0	788,960	100.0	634,555	100.0	2.057.265	0
British Anglaise	489,565	್ ೮ ೮	92,285	82,7	012 119	7 7 2	L			0.00
French				1	016/110	C • / /	365,/35	57.6	1,558,895	75.8
Française	15,410	3.0	15,325	13.7	80,215	10.2	235,025	37.0	345.975	α 9
Other Autres	17,135	3.2	4,030	3.6	97,435	12.3	33,795	5.4	152,575	

Source: Statistics Canada/Statistique Canada, Catalogue 92-723.







Gloucester County. While Madawaska remained a part of the unilingual French zone, the entire county of Gloucester was placed within the bilingual zone east of Quebec because of the situation of the constituent subdivisions that were strongly Francophone. They were considered to be relatively isolated from the French language zone to the north and west by portions of the bilingual zone. In addition this bilingual zone extended southward from Gloucester County as far as the county of Westmorland (fig. 8).

A small portion of the French language zone extended south of Madawaska County into the census subdivisions of Drummond and the town of Grand Falls in Victoria County. These two subdivisions contained 81% of the total French mother-tongue population of the county and their concentration was of sufficient strength that almost the entire population used its mother tongue as the language of the home (98.1%). In Drummond the French home-language population was over ninety per cent of the total population and while this declined in the town of Grand Falls (75.5%), the use of the language by the French community was vital. Such language vitality and the location of this urban centre at the "edge" of the French language zone warranted its inclusion as part of that zone (fig. 8).

Beyond these subdivisions in Victoria County the vitality of the French language declined as the proportion of the French mother-tongue population to total population began to wane. In the rural portion of the subdivision of Grand Falls the population of French mother tongue constituted only 27.1% of the total population. The ratio between the population of French home language to that of French mother tongue, however, was high at 91:100. This probably indicated the proximity of this population to the French language zone and to its location within the trade area of

38

Edmundston. It was possible for these people to obtain some services in French in and from this distribution centre (fig. 14). Southward, the number of people of French mother tongue declined to approximately one thousand for the rest of the county. Of these only 60% were using their mother tongue in the home. Thus, from the edge of the French language zone of Madawaska/northern Victoria, the gradient into the English language zone was very steep. The French language communities declined very rapidly both in their absolute numbers and in the retention ratios of their mother tongue.

The northern and eastern counties of New Brunswick, from Restigouche to Westmorland, constituted the bilingual zone of the Atlantic region of Canada. Within these five counties the proportion of the population of French mother tongue to the total population ranged from a high of 82.8% in Gloucester, to 25.8% in Northumberland (table 13). However, the vitality of the French language was similar to that found within the bilingual zone to the west of the French language zone. The percentage of the people of French mother tongue who were using the language in the home was close to or exceeded ninety per cent; the strongest percentage was in Gloucester County for reasons given above. Perhaps the most interesting pattern within this portion of the bilingual zone was the similarity in the pattern of the indices of language intensity to that in Ontario west of the French language zone. As distance from the latter increased, the index of intensity for the French-speaking population weakened markedly.*

^{*} This was true for Pontiac County within the bilingual zone of Quebec as well, while the counties closer to the core area of French Canada, and the densely populated portion of the French language zone, displayed more balance between the two language populations. This change was not so apparent in the townships to the east of Montreal because of the steady decline in the English mother-tongue population (tables 7 and 14).

TABLE 13
MOTHER TONGUE, HOME LANGUAGE AND OFFICIAL LANGUAGE DATA
FOR ENGLISH AND FRENCH POPULATIONS, BY CENSUS DIVISION,
NORTHERN AND EASTERN NEW BRUNSWICK, 1971

DONNEES SUR LA LANGUE MATERNELLE, LA LANGUE D'USAGE ET LA LANGUE OFFICIELLE, POPULATIONS ANGLOPHONE ET FRANCOPHONE, PAR DIVISION DE RECENSEMENT, NORD ET EST DU NOUVEAU-BRUNSWICK, 1971

TABLEAU 13

CENSUS DIVISION DIVISION DE RECENSEMENT	TOTAL	EMT	% of/du TOTAL	u FMT FLM	% of/du TOTAL	EHL	% of/du TOTAL	FHL	% of/du TOTAL	EHL×100 ALU ALM×100	FHLX100	OL:EO LI LO:AS IL	OL:FO	O LI S IL	OL:E&F LO:A&F	% of/du TOTAL
RESTIGOUCHE	41,290	41,290 16,405 39.7 24,680	39.7	24,680	59.8 17,815	17,815	43.1	23,395	56.7	108.8	94.8	94.8 13,085 .73 11,995 .51 16,210	3 11,9	95 .5	1 16.210	39.3
GLOUCESTER	74,750	12,615	16.9	16.9 61,875	(82.8) 14,130	14,130	18.9	60,525	81.0	112.0	97.8	9,653 .68 40,380	8 40,3	9. 08	.67 24,720	33.1
NORTHUMBERLAND	51,560	37,130	72.0	72.0 13,280	25.8 38,685	38,685	75.0	11,905	23.1	104.2	9.68	36,635 .95 6,035	5 6,0	35 . 5	.51 8,755	17.0
KENT	24,900	3,640	14.6	14.6 20,265	81.4 3,985	3,985	16.0	19,975	80.2	109.5	98.6	3,805 .96	0'6 9	90 . 4	9,090 .46 11,835	47.5
WESTMORLAND	98,670	98,670 58,015	58 . 8	39,735	40.3 62,585	62,585	63.4	35,655	36.1	107.9	0.06	54,380 .87		45 . 2	8,345 .23 35,880	36.4

Sources: Statistics Canada/Statistique Canada, Catalogues 92-773, 92-726

TABLE 14

Indices of Language Intensity, Indices de concentration lin-

TABLEAU 14

English and French, for guistique, anglais et français, Selected Census Divisions Divisions de recensement à l'intérieur de la zone bilingue du Canada, 1971

Census division Division de recensement	English Anglais	French Français	% of pop'n Bilingual % pop. bilingue
Eastern Ontario Est de l'Ontario			
Prescott	.62	.48	49.2
Russell	.73	.50	46.0
Glengarry	.75	.25	45.6
Stormont	.78	.49	39.9
Ottawa-Carleton	.91	.22	26.7
Northern Ontario Nord de l'Ontario			
Nipissing	.86	.27	31.6
Sudbury	.90	.21	33.0
Timiskaming	.90	.35	25.5
Cochrane	.88	.34	39.0
Quebec: Ottawa Val Québec: vallée de	aouais		
Deux-Montagnes	.65	.75	27.4
Vaudreuil	.68	.65	34.5
Argenteuil	.68	.63	35.6
Papineau	.56	.71	31.3
Hull	.53	.51	48.9
Gatineau	.69	.58	39.1
Pontiac	.83	.40	34.0
New Brunswick Nouveau-Brunswick			
Restigouche	.73	.51	39.3
Gloucester	.68	.67	33.1
Northumberland	.95	.51	17.0
Kent	.96	.46	47.5
Westmorland	.87	.23	36.4

L.I. English: OL:EO EHL

I.L. Anglais: $\frac{LO:AS}{ALU}$

L.I. French : $\frac{OL:FO}{FHL}$

I.L. Français: LO:FS FLU

According to the premise made in Chapter II that the reliability of bilingual data was greatest in the bilingual zone of Canada, it was assumed that the English mother-tongue component within a bilingual population declined fairly rapidly with distance from the French language zone. The people of French mother tongue, while maintaining their language in the home, had to become competent in the other language of the country, because they encountered a larger proportion of the population which was unilingual English (table 14).

The southern and western counties of New Brunswick, where population was concentrated within the St. John River Valley and along the north shore of the Bay of Fundy, were considered a part of the English language zone of the Atlantic region. This zone also included the entire provinces of Nova Scotia, Prince Edward Island and Newfoundland. The majority of the census divisions that constituted the English language zone of the Atlantic region had a population of English home-language that exceeded ninety per cent of the total population. There were, however, communities of people of French mother tongue scattered throughout this zone (fig. 8). It was these communities that constituted the language islands that were within the English language zone (table 15).

There were only four census divisions in this zone in which the English home-language population was below 90% of the total population. These were divisions that contained French language communities in the counties of Digby, Yarmouth, Inverness and Richmond in the province of Nova Scotia. The percentage of English home-language population of total population for each county was 64%, 73%, 81%, and 66% respectively. The degree of language usage for the Francophones, as measured by the ratio of home-language to mother-tongue populations, was strong within the four census divisions (table 15). In spite of these features, the minority communities

were classified as language islands rather than as a part of the bilingual zone.

Their situation relative to either the bilingual zone or the French language zone was similar to the language islands of western Canada and southern Ontario. Since opportunities for interaction were remote, the presence of the English language was encompassing. The language intensity index for these French communities was closer to zero than for those located in either the bilingual zone or the French language zone, while the same index for the English-speaking population within these census divisions (table 15) was very close to unity. Even for the four census divisions discussed above in which the English home-language ratio to total population was below 90:100 the English language intensity index for the four counties was .91, .82, .97, and .82, respectively. Hence, the majority of the French mother-tongue population must have been bilingual in these communities since so few people of English mother tongue classified themselves as bilingual in 1971.

With the strength of the English language both in and around these language islands it was probable that the unilingual English population was under-represented while the bilingual population was over-represented in the census divisions in table 15. The reason for this, given in Chapter II, was associated with the editing procedures of Statistics Canada.

Other reasons can be provided for the differentiation of the language zones in the Atlantic region, but for this purpose, scale variations must be applied to the census divisions and these placed within the context of the distribution of permanent habitation. With change in scale, other measures may be applied to determine the composition of the

TABLEAU 15	NE DONNEES LINGUISTIQUES, POPULATIONS FRANCOPHONE ET ANGLOPHON	DES "ILOTS LINGUISTIQUES" DE LA REGION ATLANTIQUE DU CANADA,	
TABLE 15	LANGUAGE DATA FOR THE FRANCOPHONE AND ANGLOPHONI	POPULATIONS OF THE "LANGUAGE ISLANDS" OF THE	ATLANTIC REGION OF CANADA, BY CENSUS DIVISION, 1971

% of/du TOTAL	36.1 32.2 15.5 42.0	15.4	7.3	8.2
OL: E&F LO: A&F	7,355 7,935 3,160 5,355	6,480	2,060	2,305
LI	.15	•16	* 200	en en
OL:FO LO:FS	1,110 715 1,165 435	635	50	420
LI	. 91 . 98 . 94	. 92	9	66.
OL:EO	11,885 16,020 15,990 6,900	34,960	26,240	24,930
FHL FMT FLU FLU FLM	94.5 83.4 92.0 80.0	66.5	58 . 3	79.2
EHL EMT ALU ALU ALM	104.1 108.3 104.6 115.1	106.1	102.4	102.7
% of/du TOTAL	36.0 26.3 17.3 32.4	و. تن	2.6	4.5
FHL	7,305 6,495 3,515 4,120	3,995	735	1,260
% of/du TOTAL	64.0 73.4 80.6 65.8	90.3	97.3	0.06
EHL	13,005 18,125 16,415 8,385 15,795	37,985	27,595	5.6 25,260
% of/du TOTAL	38.0 31.5 18.7 40.5	14.3	4.4	5.6
FMT	7,730 7,785 3,820 5,155	6,005	1,260	87.3 1,590
% of/du TOTAL	61.4 67.8 77.0 57.2 89.4	85.1	95.1	87.3
EMT	12,490 16,730 15,690 7,285 15,030	35,795	26,950	24,595
TOTAL	20,350 24,685 20,375 12,735 16,815	42,080 35,795	28,350	28,165 24,595
CENSUS DIVISION DIVISION DE RECENSEMENT	Nova Scotia/Nouvelle-Ecosse Digby Yarmouth Inverness Richmond	Prince Edward Island/ Ile-du-Prince-Edouard Prince Newfoundland/Terre-Neuve	Contains/renferme Port au Port) Division #10 (contains Labrador West	renferme Labrador-Ouest)

^{*} Totals too small to provide significant L.I. index. Les totaux sont trop bas pour fournir un I.L. significatif.

Source: Statistics Canada, Catalogues 92-773, 92-726. Statistique Canada, Catalogues 92-773, 92-726.



minority population and the change in this population, over time, relative to that of the majority. The presentation will continue to follow the language zone concept.



Chapter IV

THE FRENCH LANGUAGE ZONE AND THE BILINGUAL ZONE OF THE ATLANTIC REGION

The reasons for incorporating the county of Madawaska into the French language zone of Canada were discussed in Chapter II. While the county was separated linguistically from the rest of New Brunswick, it was subject to the same economic forces that were operative in the northern part of the province. For this reason, the analysis of processes and patterns have incorporated both language zones in northern and eastern New Brunswick. The absolute numbers of the French ethnic population in New Brunswick were much higher than in other Atlantic provinces and, more importantly, there was a greater degree of contiguity among this "Acadian" population. Although uneven throughout, there was also a higher ratio of French mother-tongue population to total population in most of the counties of "Acadian" concentration. the most important features of this distribution in New Brunswick was the presence of some retail trade centres that did not appear to be assimilating centres to the same degree as in the rest of the Atlantic region. (See below, passim.)

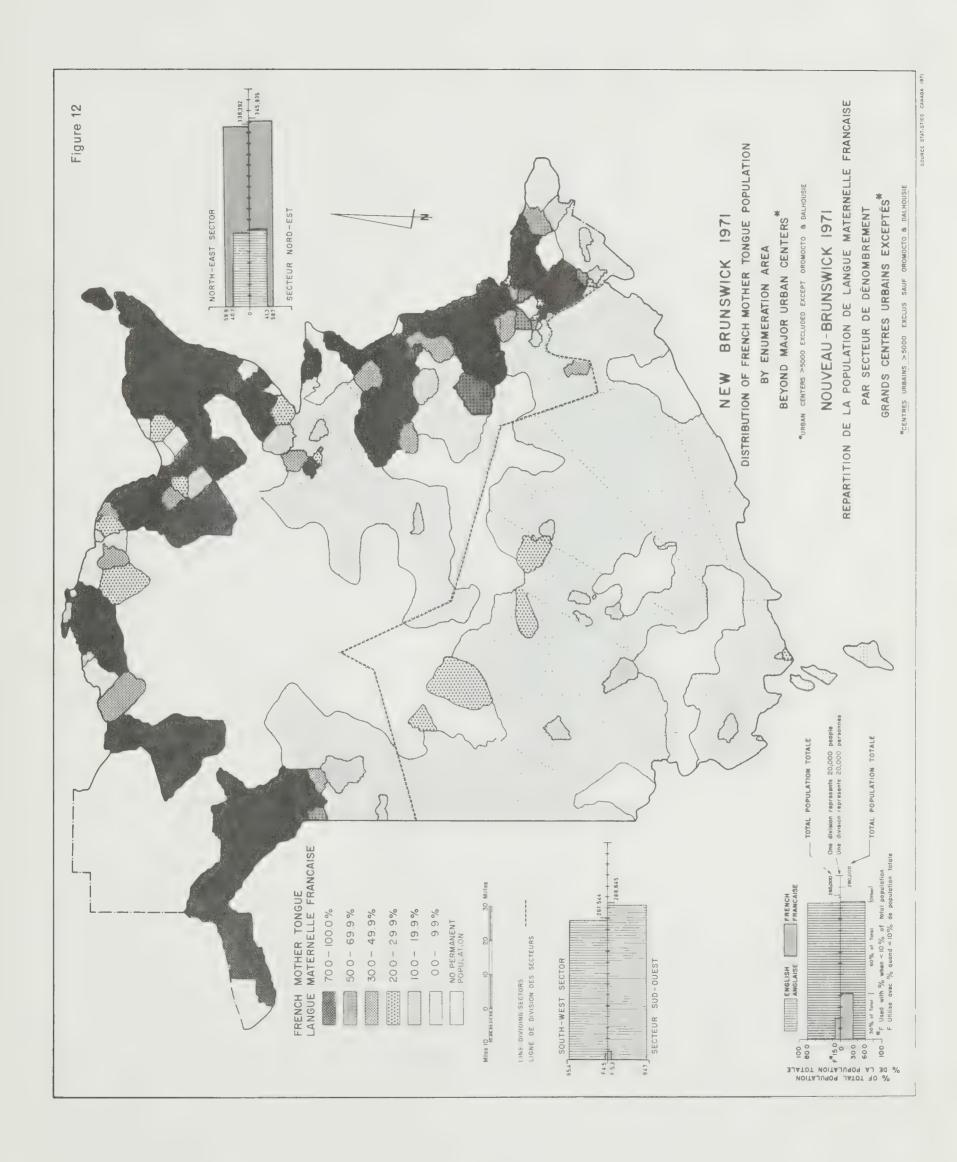
Proximity to the French language zone of central Quebec/
Madawaska meant that almost the entire Francophone population
of New Brunswick did not exist in language islands to the same
extent as the populations of French mother tongue in other
parts of the Atlantic region. The potential for interaction
with the French unilingual zone was greater. At the same time
the population of the bilingual zone of New Brunswick experienced some contact with the people of the English language
zone of the Atlantic region, particularly that section of the

zone in southern New Brunswick, northwestern Nova Scotia, and Prince Edward Island. Hence it was an area that was subject to processes that radiated from the two neighbouring language zones as well as those that functioned internally. Because of this location, the bilingual zone was considered to be dynamic, one that was subject to change and to the impact of anglicizing forces. However, because of the mass and inertia of the minority population, counteracting measures could be generated internally. The penetration of external influences could be less severe than among the language islands discussed below although some indication of language erosion was encountered.

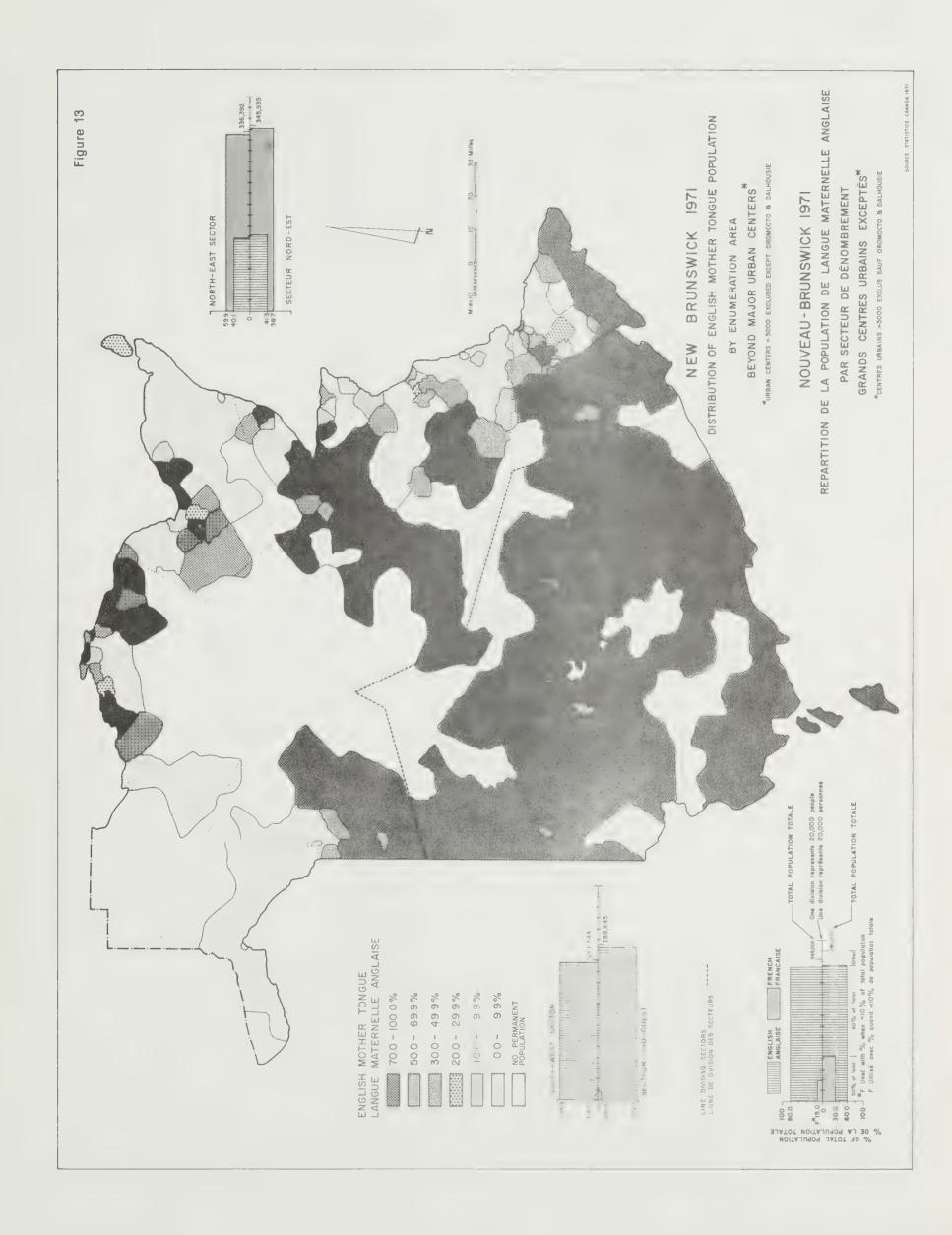
To ascertain the potential for the penetration of the forces of change and to locate contact areas between the language zones, we asked Statistics Canada to produce computer maps of the distribution of the major mother-tongue populations of New Brunswick (English and French) by enumeration areas. These areas (E.A.'s) represented the territory that a single enumerator covered in the time that was assigned to him during the census year. Initial population tabulations were made by the enumeration area and, although no data were published on this basis, the data were obtained in the form of computer print-outs.

Because of the concentration of enumeration areas in urban centres over 5,000 people they were omitted from the provincial map and separate computer maps were produced for each centre. The only exceptions to this were Oromocto and Dalhousie where the E.A.'s were not heavily concentrated and could be accommodated on the provincial map (figs. 12 and 13).

The cartographic presentation of statistical data within relevant statistical areas produced a choropleth map.









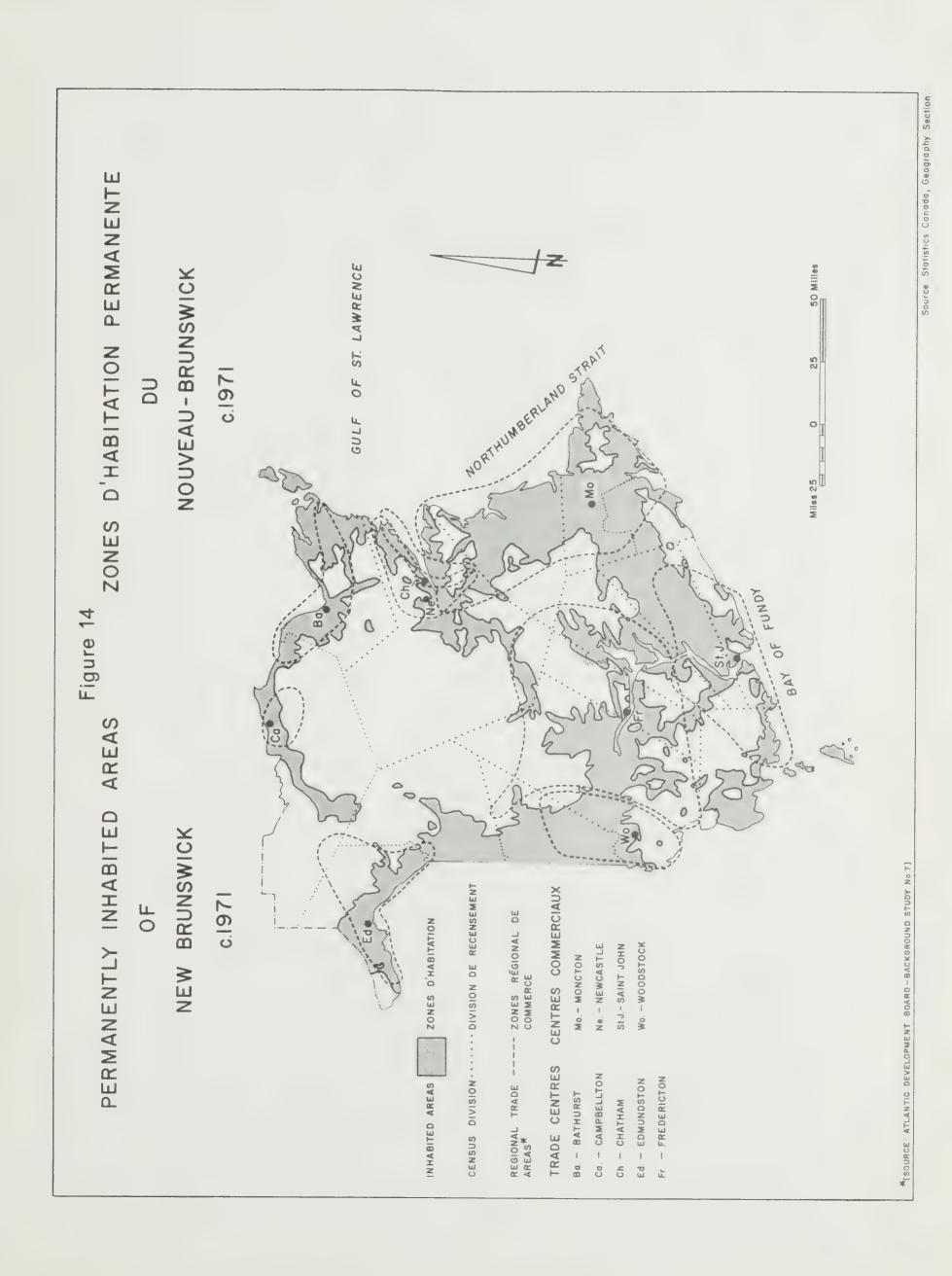
This technique was made available by Statistics Canada for the first time with the 1971 data. Prior to this census, most census data were published in tabular form. Thus the maps that were published in conjunction with census data were merely locational reference maps.

Statistics Canada was asked not only to produce this choropleth map but to make it conform, in the distribution of the mother-tongue population, as closely as possible to the ecumene map of the province (fig. 14). The latter, compiled from air photo and topographical map analysis, provided the cartographic representation of permanently inhabited areas within the province. Our major problem was to prevent an enumeration area being completely designated by the computer with a population interval if part of that E.A. was void of permanent population. If this occurred, the map would give the impression that the different mothertongue populations were in contact equally throughout the province. Once the computer identified a specific enumeration area by numerical co-ordinates, it assigned the correct ratio of mother-tongue population and printed the corresponding symbol through the entire E.A. However, only the permanently inhabited portion of the E.A. was to be designated as having a mother-tongue population of a specified percentage interval (fig. 13). Although the choropleth map and the ecumene map did not coincide perfectly in their respective distributions, the correlation provided by Statistics Canada was admirable (figs. 12, 13 and 14).

The French mother-tongue population of northern New Brunswick was distributed in a fragmented pattern. The distribution arched north of the rugged New Brunswick upland, and then became more diffuse on the lowlands of Gloucester county and northern Northumberland county. Within the three northern counties of Madawaska, Restigouche and Gloucester,

the French mother-tongue population comprised 94.6%, 59.8%, and 82.8% of the total population respectively. In these northern counties, the map of the distribution of the population of English mother tongue illustrated clearly their coastal concentration that was focused upon the major urban centres of Campbellton, Dalhousie and Bathurst. East of Dalhousie the English-language population was spread thinly along the coast as far as the boundary between Restigouche and Gloucester. The total population in this pocket was about five thousand people of whom approximately 69% were people of English mother tongue. Its location created a separation between the stronger concentrations of Francophone settlements to the east and west (fig. 12).

A further separation of the French mother-tongue population was associated with the inhospitable environment of the interior of northern New Brunswick. The inland penetration of settlement was relatively minor except along the railway and highway that linked the coastal centres along Chaleur Bay to the upper St. John River valley and the city of Edmundston in Madawaska county. The frequency of contact between the communities of Restigouche and Madawaska was probably less than the interaction of the former with the population of Quebec. Road and rail networks through the Matapedia River valley facilitated movement to several Francophone communities in the Gaspé Peninsula. The fragmentation of the population of the three northern counties was again evident when the limit of the trade areas of major urban centres was superimposed upon the ecumene map of the province (fig. 14). These trade areas were analyzed through a study sponsored by the Atlantic Development Board and they illustrated the alignment of the population to the three





cities of Edmundston, Campbellton and Bathurst for whole-sale and retail services 1.

In the two major urban centres of Campbellton and Dalhousie, in Restigouche county (population 10,335 and 6,255 respectively), the two mother-tongue populations were almost evenly divided. As to the use of the mother tongue as the language of the home, the balance was somewhat similar but with a stronger preference for English (table 16).

The two centres had 92.6% and 88.1% of the French mother-tongue populations using their language in the home. Since 1971 was the first census for the language-of-the-home question, it will be necessary to wait until 1981 to determine whether the apparent English language preference will stabilize or continue to swing away from French. In 1971 the language intensity index for the Francophone population was weaker in the city of Campbellton than elsewhere in the county (tables 13 and 16) and reflected the ubiquitous necessity for the people of French mother tongue to learn the second official language. However, the language intensity index for the population that used English in the home was not as high as in the eastern counties of New Brunswick nor the counties in the English language zone. The people of English mother tongue had a relatively high proportion who were bilingual and this became significant when one considered the potential labour supply for services to the public in English and French.

It was possible for the rural population within the trade area of Campbellton and Dalhousie to obtain various

^{1.} Atlantic Development Board, <u>Urban Centres in the Atlantic Provinces</u>, <u>Background Study No. 7</u>, <u>Information Canada</u>, Ottawa, 1969.

services, (medical, dental, legal, governmental, etc.) in its mother tongue. At the time of writing it was too soon to assess whether these centres were assimilating centres for either of the mother tongue populations, although this was considered to be unlikely for the English because of the balance between the two populations. The economic base was strongly associated with the forest industry and the growth rate for the two centres was assessed as about equal to that of the whole Atlantic region². Unless the market forces cause a shift in this growth rate, the shift in language preference may depend more upon perceived advantages than upon alterations in the economy of the region.

In Gloucester County the majority of the French mother-tongue population was in the rural part of the county, particularly within the peninsula of land situated between Chaleur and Miramichi Bay. As in Restigouche, the English mother-tongue population was concentrated in and around the major urban centre of the county, the city of Bathurst. The proportions of mother-tongue and language-of-the-home populations were strikingly similar to that of Campbellton and Dalhousie (table 17).

Although 87.2% of the French mother-tongue population of Bathurst was using French in the home, the balance of language usage favoured English in this city, an urban centre that had a population growth rate above that for the Atlantic region as a whole in the late sixties³. The language intensity indices for the two language groups had similar characteristics in Bathurst to that found in Campbellton. There was a considerable decline toward the zero level for the urban

^{2.} Atlantic Development Board, ibid.

^{3.} Atlantic Development Board, ibid.

TABLE 16

Populations of Mother-Tongue and Language-of-the Home, Campbellton and Dalhousie, New Brunswick, 1971

Population selon la langue maternelle et la langue d'usage, Campbellton et Dalhousie, Nouveau-Brunswick, 1971

TABLEAU 16

L.I. English French I.L. Anglais Français	.32	n.a.
Englis	.73	n.a.
EHL EMT ALU ALU ALM	109.5	112.0
% of/du total	54.4	55.0
EHL	5,650	3,445
FHL FMT FLU FLU FLM	92.6	88.1
% of/du total	45.2	44.5
FHL	4,700	2,785
% of/du total	49.9	49.2
EMT	5,160 49.9	3,075
% of/du total	49.1	50.5
FMT	5,075	3,160
Total Pop'n totale	10,355 5,075	6,255 3,160
	Campbellton	Dalhousie

Statistics Canada, Special tabulation/Statistique Canada, Tabulation spéciale. Source:

Note:

Components may not equal total due to rounding. Les composantes en chiffres arrondis ne correspondent peut-être pas au total. Nota:

Language intensity index unilingual population home-language population unilingue Indice de concentration linguistique population selon la langue d'usage I.L.

French as language of the home Français langue d'usage FHL

English as language of the home Anglais langue d'usage EHL

TABLE 17

Population of Mother-Tongue and Language-of-the-Home, Bathurst, New Brunswick, 1971

Population selon la langue maternelle et la langue d'usage, Bathurst, Nouveau-Brunswick, 1971

TABLEAU 17

I. French L. Français	. 28
L.I. English French I.L. Anglais Françai	69.
EHL EMT ALU ALU ALM	115.5
% of/du total	54.2
EHL	9,040
FHL FMT×100 FLU FLM	89.2
% of/du total	45.4
FHL	7,580
% of/du total	46.9
EMT	7,825
% of/du total	52.1
FMT	8,695
Total Pop'n totale	16,675 8,695
	Bathurst

Statistics Canada/Statistique Canada, Catalogue 92-773, 92-726. Source:

French as language of the home Français langue d'usage

FHL

English as language of the home Anglais langue d'usage EHL

L.I. I.L.

Language intensity index Indice de concentration linguistique.

francophone as compared to that for the whole county, .28 from .67. The index of language intensity for the Anglophones remained at almost the same level in the urban milieu as for the whole county, .68 and .69 respectively. Again, this provided an indication of the strength of the English language in a community in which the population of French mother tongue was just below half of the total population. However, as in Campbellton, a relatively substantial proportion of the Anglophone population was apparently bilingual; hence the potential for a labour supply to staff bilingual service operations was considered to be fairly good.

As with most urban centres in Canada, one can speculate upon the shift to a slight English-language dominance. As long as a majority of one mother-tongue population can speak the language of the other there appears to be a tendency for the latter, even when it constitutes a minority as in Gloucester county, to remain unilingual. Unless there is an effort on the part of the English mother-tongue population to correct this imbalance or a deliberate entrenchment by the French mother-tongue population in order to stabilize the present imbalance, it would appear that the shift to English will continue in these communities.

To demonstrate the composition and characteristics of the minority groups within northern New Brunswick, relative to the total population, a population pyramid of the former was superimposed upon the latter. The population pyramid is a useful device when assessing the structure of any population. The figures by themselves do not provide such an immediate impact. Each age cohort by sex is represented as a percentage of the total population. By superimposing one population upon another it was possible to contrast the minority with the total population and to determine in which age groups the French mother-tongue population was

weakest or strongest. In each bar the residual represented the English and "other" mother-tongue populations. The latter was miniscule in northern New Brunswick (fig. 15).

The population profile for the three-county area of Madawaska, Restigouche and Gloucester displayed a stronger base in the teen-age and the 20 to 24 age cohorts than in the language communities of the Atlantic region outside New Brunswick. The sharp decline in the 25 to 29 and in the 30 to 34 cohorts, however, had taken its toll among the youngest age groups, 0 to 4 and 5 to 9 (fig. 15). As in the other regions of the Atlantic provinces, the rate of increase of the local population declined as young men found employment elsewhere, delayed marriage, or elected to have a small family or no children at all.

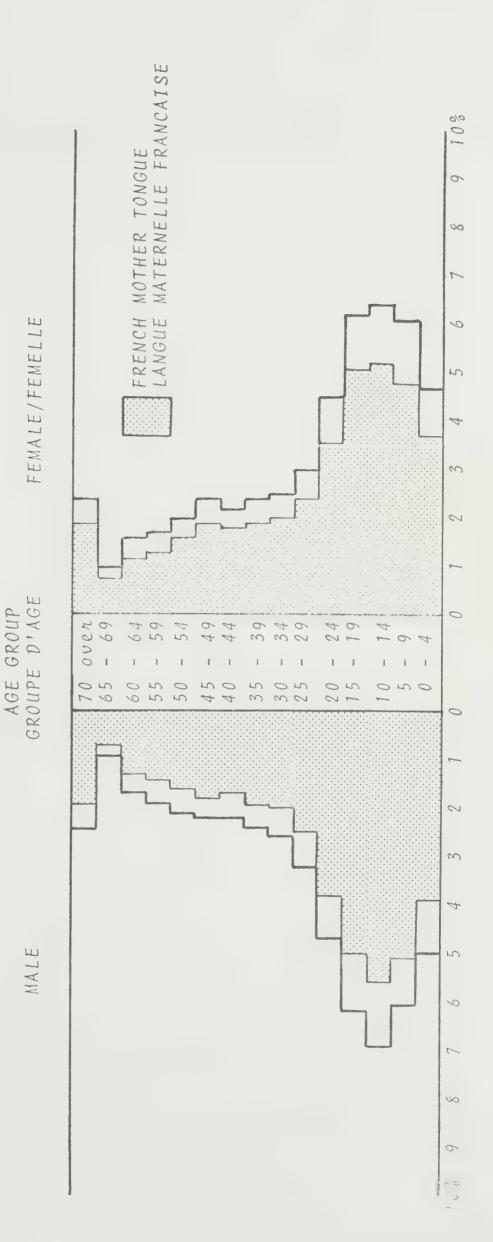
For the three-county area the increase over the 1961-1971 period of the French mother-tongue population was only 1.2%. This compared with an increase in the total population of the area at 3.2% (6.1% for the province) and an increase of 2.5% for the French mother-tongue population of the entire province.

While Gloucester county experienced population growth above the provincial average (12.7%) and Restigouche crept along at less than 1%, Madawaska lost over 10% of its population between 1961 and 1971 (4,008 people). It appeared that some of this movement occurred within the three-county area as Bathurst represented the growth point for the entire region. Among the population increase of 3,836 for the census subdivision of Bathurst, 1,346 were of French mother tongue. However, other studies revealed that part of the loss of the Francophone population was the result of job

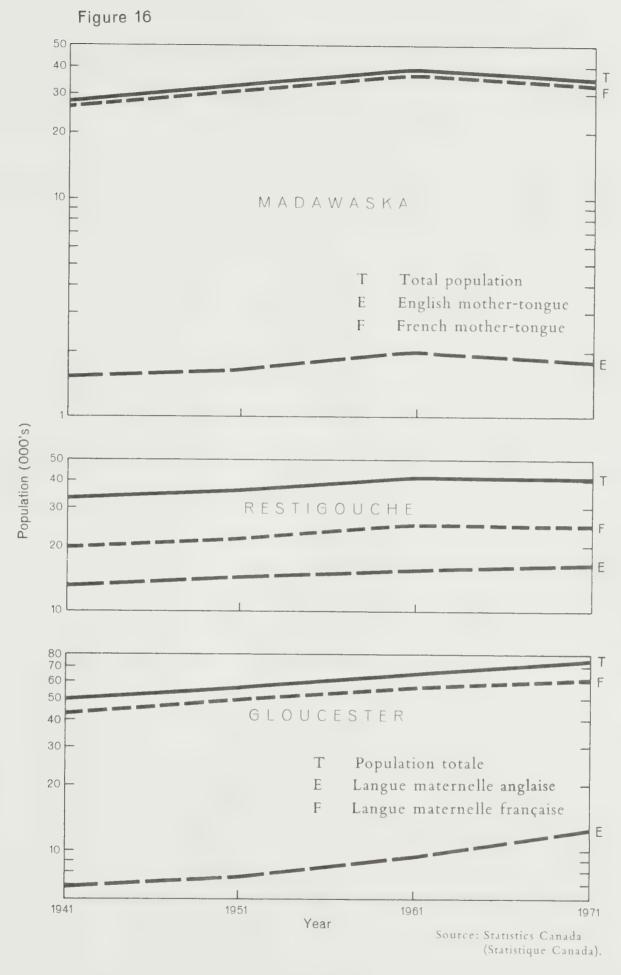
Region Gloucester-Madawaska-Restigouche Area New Brunswick-Nouveau-Brunswick

POPULATION BY MOTHER TONGUE, 1971. POPULATION SELON LA LANGUE MATERNELLE, 1971.

TOTAL POPULATION POPULATION TOTALE







Changes in Mother-Tongue Populations, Counties of Madawaska, Restigouche and Gloucester, New Brunswick, 1941-1971.

Changement de la population, selon la langue maternelle, dans les comtés de Madawaska, Restigouche et Gloucester, Nouveau-Brunswick, 1941-1971.



opportunities at relatively high salaries in Labrador and Quebec, particularly in the Sept-Iles/Port Cartier coastal region⁴.

Further evidence of growth trends within the population of French mother tongue was illustrated in the semilogarithmic graph that was constructed for the two official language groups. The rate of change for the mother-tongue population was recorded from 1941 as, prior to this date, data were recorded only for Canada and the provinces, rural and urban. The semi-logarithmic graph is useful to demonstrate a rate of change in any population. On the vertical scale numbers are spaced according to the difference between their logarithms rather than according to the difference between the numbers alone. The horizontal scale is normal. The meaningful approach to this type of graph is not to compare changes in absolute numbers of any population but rather to compare the rates of change in population growth or decline, represented by the slope of the various lines, and the fluctuations that occur over time. The graph can also accommodate figures which have a large range and which would be difficult to enter on a normal line graph (fig. 16).

Madawaska, part of the French-language zone of Canada, had an increase in total population of 24% between 1941 and 1971 (table 18), but this was below the percentage increase of 38.7 for the entire province for the same time period. The decline in total population in Madawaska since 1961 contributed to the low rate which, before that census date, had a steady growth (fig. 16). The ratio between the English and French mother-tongue populations in the county remained fairly constant over the thirty-year period as both groups declined at about the same rate from 1961 (fig. 16).

^{4.} Hilton, K.D., <u>Iron Mining Communities of Quebec-Labrador:</u>

<u>A Study of a Resource Frontier</u>, unpublished M.Sc. thesis,

<u>McGill University</u>, <u>Montreal</u>, 1968.

The situation was similar for Restigouche with a total increase of 24% in the thirty-year period. Again the ratios of the two mother-tongue populations remained relatively steady although the population of French mother tongue actually declined by 1.2% in the intercensal period, 1961 to 1971. This represented a loss of approximately 300 people while the English mother-tongue population increased by only 4.7% or by approximately 730 people.

The county with the strongest population in northern New Brunswick from 1941 was Gloucester with a rate of increase of 49.8 per cent. This was well above the provincial rate. In this county the growth centre which contributed to this population increase was the city of Bathurst and its suburban areas. Since this city was classified as a centre with a growth rate above that for the entire Atlantic region, it was obvious how significant these urban service centres were to the overall population growth of the counties. is essential to know the impact that these growth centres are having upon their mother tongue populations - that is, their ratio to total population, changes in the ratio of home-language populations to mother-tongue populations, and alterations in the indices of language intensity. Not only do these communities influence internal population shifts but, because of their expanding trade area, they are centres of attraction for people in the rural census subdivisions for employment and services.

The concentration of French mother-tongue population began to taper off as one entered Northumberland county either from the north or from the south along the coast. Within Northumberland, Francophones constituted only 25.8% of the total population and were concentrated in the census subdivisions that flanked Miramichi Bay. As one moved up the valley, one found that the population of English mother

TABLE 18 Percentage Change in Population by Census Division, Northern New Brunswick, 1941-1971	ange in P Brunswick	opulation by ,1941-1971	y Census Di	vision,	TABLEAU Changeme de recer	TABLEAU 18 Changement prop de recensement	portionnel Nord du D	TABLEAU 18 Changement proportionnel de la population, de recensement, Nord du Nouveau-Brunswick,	lation, par nswick, 1947	r division 41-1971
			1941 T	Total Pop'n Pop. totale	197	Total Pop. t	Pop'n otale	% Change % du char	Change du changement	
	P	Province	4	457,401		634,,555		38.7		
	M	Madawaska		28,176		34,975		24.1		
	R	Restigouche		33,075		41,290		24.8		
	G	Gloucester		49,913		74,750		49.8		
Percentage Change by English and Populations by Census Division, Brunswick, 1941-1971	ange by E: 7 Census I 11-1971		French Mother-Tongue Northern New	er-Tongue	Change franco Nouvea	Changement proport: francophone par div Nouveau-Brunswick,	ionnel vision 1941-1	des populations de recensement,	cions anglopho	anglophone et Nord du
	EMT ALM 1941	% of/du total	EMT ALM 1971	% of/du total	% Change % du chan- gement	FMT FLM 1941	% of/du total	FMT FLM 1971	% of/du total	% Change. % du chan- gement
Province	293,339	64.1	410,400	64.9	40.0	157,862	43.5	215,730	34.0	36.7
Madawaska	1,521	5.4	1,795	5.1	18.0	26,529	94.2	33,070	94.2	25.0
Restigouche	13,337	40.3	16,405	39.7	23.0	19,279	58.3	24,680	0.09	19.3
Gloucester	6,864	13.8	12,615	16.9	83.8	42,945	86.0	61,875	82.	44.1

Source: Statistics Canada/Statistique Canada, Population, Vol. 1, 1941, Vol. 2, 1971.

TABLE 19				TABLEAU	1 19				
Mother-tongue, Home-language and Of Language Data for English and Frenci Populations, Chatham and Newcastle, New Brunswick, 1971	er-tongue, Home-luage Data for Englations, Chatham Brunswick, 1971	ngue, Home-language and Off Data for English and French ns, Chatham and Newcastle, wick, 1971	Mother-tongue, Home-language and Official Language Data for English and French Populations, Chatham and Newcastle, New Brunswick, 1971	Données d'usage anglophe Nouveau	s sur la e et les none et f 1-Brunswi	langues Iangues Francoph	Données sur la langue maternelle, la langue d'usage et les langues officielles, populations anglophone et francophone, Chatham et Newcastle Nouveau-Brunswick, 1971	les, la la les, pop ham et N	angue pulations Newcastle,
	Total	EMT	% of/du total	FMT % Of/ FLM total	of/du otal	EHL	% of/du total	FHL	% of/du total
Chatham	7,830	7,065	90.2	700 8.	6.8	7,435	95.0	335	4.3
Newcastle	6,460	5,825	90.2	565 8	.7	6,265	97.0	355	5. 5.
	EHLX100 EMTX100 ALUX100	FHLX100 FLU FLWX100	OL:EO LO:AS	LI	OL:FO LO:FS	H	LI OL	OL: E&F LO: A&F	% of/du total
Chatham	105.2	47.9	6,825	.92	09	.18	<u></u>	950	12.1
Newcastle	107.6	. 62.8	5,795	. 63	65	.18		795	12.3

Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale. Source:

tongue began to predominate. During the nineteenth century the valley of the Miramichi was a significant site for colonists of British ethnic origin⁵. The descendants of this stock had maintained their dominance throughout the valley and formed a wedge between the Francophone population of northern and eastern New Brunswick.

It was in Northumberland County that the language intensity index of the Anglophone population rose sharply to .95 from that of Gloucester County to the north (.68) — a reflection of the duration in the valley and the domina tion by the population of English mother tongue. The major service centres of Chatham and Newcastle were situated in the "British-dominant" portion of the county and while these towns had a relatively small trade area, they did service some of the "French-dominant" census subdivisions to the northeast. Many of the Francophone people in this area who were unilingual French (language intensity index .71) undoubtedly found it necessary to travel as far as Bathurst to obtain specific services, such as medical, governmental, etc. in their mother tongue.

Not only were the populations of the two towns dominated by people of English mother tongue (table 19) but these Anglophones had a language intensity index close to unity. Of the small proportion of the French mother-tongue population in Chatham and Newcastle, 48% and 63% respectively had maintained their language in the home — a rather surprising fact in view of the dominance of the English language in the two centres. The low indices of language intensity for the Francophones, again difficult to calculate accurately because of the small numbers involved, and the very low percentage of the population classified as bilingual, indicated that the minority population in Chatham and Newcastle had difficulty in using its mother tongue outside of the home (table 19).

^{5.} Mannion, J.J., op. cit.

This would explain, in part, why the trade area of Moncton, located about seventy-five miles to the south of Chatham/Newcastle, was able to encroach upon the southern trade area of these two communities (fig. 14). Obviously the greater variety of goods and services offered in Moncton as well as the adequate road and rail linkages, also accounted for this overlap in trade areas. Nevertheless, the French mother-tongue population along the southern boundary of Northumberland appeared to favour Moncton as a wholesale and retail centre.

Since 1941 the growth of the total population in Northumberland, while below the provincial rate at 34.0%, had been stronger than that of Restigouche and Madawaska to the north (table 20-A). Both mother-tongue populations increased at about the same rate (table 20-B). In the decade 1961 to 1971, however, the population growth for the county began to level off with an increase of only 3%—well below the figure for the province at 6.1%. This growth in the county was accounted for largely through the expansion of the urban centres of Chatham and Newcastle. Each had a rate of population increase that was higher than that of the Atlantic Region as a whole. In both towns and in the rural portion of the county, the French mother-tongue population declined slightly from 13,346 in 1961 to 13,280 in 1971.

The Anglophone settlement throughout the Miramichi Valley appeared as a salient of the English language zone that, as in the census subdivisions northwest of Ottawa, bisected the apparent "belt" of Francophone settlement (fig. 13). Within this salient the people of French mother tongue constituted only 2.7 per cent of the total population and the usage of their mother tongue in the home was low at 47.3%. With a language intensity index of .18 and an "over-represented" bilingual population of 3.4% of the total, and

TABLE 20-A

Percentage Change in

Population by Census Division

Eastern New Brunswick

1941 - 1971

TABLEAU 20-A

Changement démographique proportionnel des populations par division de recensement Est du Nouveau-Brunswick 1941 - 1971

	1941 Total population totale	1971 Total population totale	% change % du changement
Province	457,401	634,555	38.7
Northumberland	38,485	51,560	34.0
Kent	25,817	24,900	- 3.6
Westmorland	64,846	98,670	52.2

Source: Statistics Canada/Statistique Canada, Vol. 2, 1941, Vol. 1, 1971, "Population".

TABLEAU 20-B	CHANGEMENT PROPORTIONNEL ANGLOPHONE, PAR DIVISION EST DU NOUVEAU-BRUNSWICK
TABLE 20-B	PERCENTAGE CHANGE BY ENGLISH AND FRENCH MOTHER-TONGUE POPULATIONS, BY CENSUS DIVISION, EASTERN NEW BRUNSWICK 1941 - 1971

DES POPULATIONS FRANCOPHONE ET DE RECENSEMENT, 1941 - 1971

	EMT ALM 1941	% OF/DU TOTAL	EMT ALM 1971	% OF/DU TOTAL	% CHANGE % DU CHANGEMENT	FMT FLM 1941	% OF/DU TOTAL	FMT FLM 1971	% OF/DU TOTAL	% CHANGE % DU CHANGEMENT
Province	293,339	64.1	410,400	64.7	40.0	157,862	8. 4. 7.	215,730	34.0	36.7
Northumberland	27,667	72.0	37,130	72.0	34.2	10,009	26.0	13,280	25.8	32.7
Kent	4,921	19.1	3,640	14.6	-26.0	20,585	7.67	20,265	81.4	-1.6
Westmorland	37,243	57.4	58,015	ω	55° 8°	26,611	41.0	39,735	40.3	49.3

Source: Statistics Canada/Statistique Canada, Population, Vol. 1, 1941, Vol. 1, 1971.

TABLE 21
Northumberland "Salient" (part)

TABLEAU 21

Le "Saillant" de Northumberland (en partie)

EHL ALU	OL:EO LO:AS		LI	OL:FO LO:FS		LI	OL:E&F LO:A&F
Blackville	2,555	2,585		0	0		30
Blissfield	765	790		0	0		45
Derby	1,150	1,195		0	10		60
Ludlow	1,945	1,975		0	5		40
Nelson	1,015	1,055		0	0		40
Northesk	2,410	2,450		15	55		75
Southesk	1,540	1,595		0	20		15
Glenelg	1,825	1,890		0	45		95
Blackville (v)	870	895		0	10		40
Doaktown (v)	880	895		5	5		5
Nelson Miramichi (v)	1,395	1,490		5	50		140
Total	16,350	16,815	.97	40	270	.15	580

⁽v) - village

Source: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.



since more than half of the population of French mother tongue was using English in the home, it seemed reasonable to state that the assimilation of much of this minority had occurred throughout central Northumberland. The language intensity index for the Anglophones in this region had remained at a very high level (.97) indicating very little effort to attain competence in the minority language (table 21).

The eastern end of the bilingual zone in Canada was situated in the counties of Kent and Westmorland. The two counties will be discussed together, for in spite of the administrative division, the former appeared to be influenced by the growth and prosperity of the latter. The separation of the Francophone population in these eastern counties from those in the northern and northwestern counties of New Brunswick, by the English-dominant salient, was similar in pattern to the situation in eastern and northern Ontario although the distance between these settlement concentrations was not as great in New Brunswick.

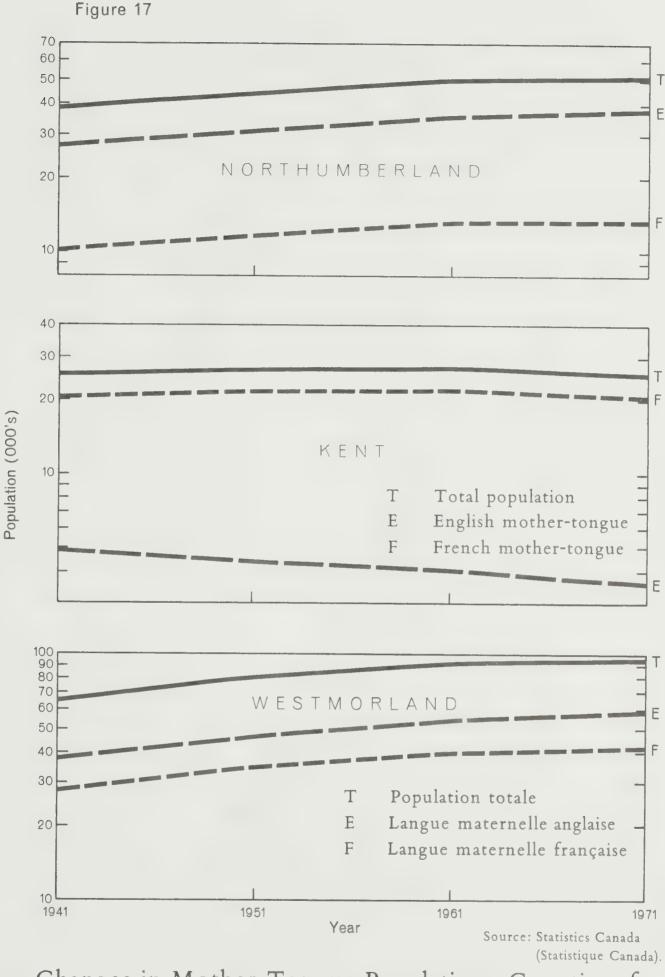
Although in Kent county all mother-tongue components of the total population increased very gradually from 1941 to 1961, there was a decrease between 1961 and 1971 so that the county experienced an absolute decline in total population over the thirty-year period (fig. 17). It is possible that Westmorland benefited from this out-migration as that county had one of the highest growth rates in New Brunswick from 1941; at 52% it was well above the provincial rate (fig. 17).

Those Francophones who continued to occupy the land in Kent were heavily concentrated along the coast and within the valleys of the extreme northern and southern portions of the county. Most of the population of English mother tongue

was located in two census subdivisions and the village of Rexton in the central portion of the county, clustered in the valley and along the small tributaries of the Salmon River. Hence, the distribution of the two language groups resembled the pattern found in Northumberland county but on a reduced scale. Because of their higher proportion to the total population, plus the greater opportunity for social and business contacts with Francophones in both Kent and Westmorland, the people of French mother tongue who lived within the small Anglophone agglomerations had retained their language in the home at 95 per cent*. The Anglophones as well had a similar ratio of language usage and, as with the Anglophones of the Miramichi Valley in Northumberland, their index of language intensity was very high at .98. Conversely the same index for the Francophones was much lower in this interior settlement of Kent County at .34*. Once again the Anglophone population had made little or no effort to become bilingual and the situation of "overbalanced bilingualism", characteristic of the bilingual zone in Ontario, was repeated in the counties of eastern New Brunswick.

The Francophone population of Kent County dominated nine of the eleven census subdivisions, comprising 75% or more of the population (fig. 12). However, in spite of their minority situation within these nine subdivisions the Anglophones maintained a language intensity index of .95 (2,255 people) while the majority Francophones, who had maintained their language in the home (98%), had a language intensity index of only .46. Even when they formed a substantial proportion of the population of a community the Francophones found it necessary to acquire the second official language.

Statistics Canada: Special tabulation.



Changes in Mother-Tongue Populations, Counties of Northumberland, Kent and Westmorland, New Brunswick, 1941-1971.

Changement de la population, selon la langue maternelle, dans les comtés de Northumberland, Kent et Westmorland, Nouveau-Brunswick, 1941-1971.



To the south, in Westmorland County, the pattern of Francophone settlement maintained its coastal orientation before spreading across the south-central portion of the county between the Northumberland Strait and the estuary of the Petitcodiac River. The Anglophones continued to dominate the interior subdivisions of the county, particularly that of Salisbury, and actually formed an extension of the English language zone eastward from the counties of Kings and Queens (fig. 13). With an English mother-tongue population that was 95% of the total population of Salisbury and a language intensity index of .98, the census subdivision actually constituted the area of contact between the English language zone and the eastern extremity of the bilingual zone. This contact was reflected in a further drop in the language intensity index for the Francophone population to .23 for the entire county of Westmorland and thus provided the lowest index of the constituent counties of the French language zone and the bilingual zone of the Atlantic region.

In spite of a steady rate of increase from 1941 of the population of French mother tongue in Westmorland (fig. 17) and language usage that maintained a level of 90% (table 13), the Francophones were in a transitional milieu in which they found it essential to learn the second official language. There was a slight improvement in the balance of bilingualism in the county in that the language intensity index for the Anglophone population was not as intense as in Northumberland (.95) and Kent (.96) counties but it was still relatively high at .87.

From 1961 the regions that accounted for the rate of growth of the French mother-tongue population had been the coastal subdivision of Botsford (+613 people) and the city and census subdivision of Moncton. This metropolitan area which was the major trade centre for approximately 150,000

people in the eastern counties of Albert, Westmorland, Kent and a southern portion of Northumberland had in its trade area, about 62,000 people of French mother tongue. The Francophone population of the city and the subdivisions appeared to be viable in 1971. Between 1961 and 1971, the total population of the metropolitan area grew by about 9% while the F.M.T.* portion expanded by approximately 12% and thereby increased from 32% to 34% in 1971. The proportion of this population which was maintaining the language through usage in the home remained high at approximately 84% (table 22). On the other hand, the growth in the city seemed to have taken place at the expense of neighbouring Kent County. Also the F.M.T. population in most of the rural census subdivisions within Westmorland declined although the magnitude here was considerably less than in Kent County in 1971.

Unfortunately these people entered an urban milieu where the index of language intensity for the minority population was even lower at .14 than that for the county as a whole (table 22). Hence, the Francophones of Moncton formed a very large proportion of the population who were classified as able to speak both official languages. The index of language intensity for the Anglophone population was .85 which was considerably higher than that found in Bathurst where the same group had an index of .69 and, therefore, a more balanced bilingual population. Nevertheless, the reluctance on the part of the population of British origin to become bilingual was a recurring feature of the major urban centres of New Brunswick. Traditionally, it had been left to the Francophone population to take up the second language even in those urban situations in which the mother-tongue populations were closely balanced or, as in the case of Grand Falls, the Francophone population predominated. This

^{*} F.M.T. = French mother tongue population.

	1	

	e, la langue, groupes de Moncton,	LI	. 85	LI	.14		
	maternelle officielle, hone, Cité	OL:EO LO:AS	28,830	OL:FO LO:FS	1,935		
	sur la langue et la langue ne et francopl Brunswick, 197	EHLX100 EMTX100 ALUX100	109.3	FHL FMT FLU FLU FLW	83.9		
TABLEAU 22	Données s d'usage e anglophon Nouveau-B	% of/du total	70.8	% of/du total	28.5		
	Official nch	EHL	33,900	FHL	13,640		
	nguage and ish and Frei	% of/du total	64.8	% of/du total	34.0	% of/du total	35.6
	Mother-Tongue, Home-Language and Official Language Data for English and French Communities, City of Moncton, New Brunswick, 1971	EMT	31,015	FMT	16,260	OL:E&F LO:A&F	17,050
TABLE 22	Mother-Ton Language I Communitie New Brunsv	Total pop. totale	47,890				

Source: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.



may have had a significant perceptual impact upon the decisions of the Francophones of the youngest age cohorts to learn English. Once this section of the minority population attained the capability of speaking the language of the majority population of the province, the opportunities for contact and interaction with members of the same ethnic group, who had gone beyond this capability and had actually adopted English as the language of usage, was increased. Similarly, the contacts with members of the population of British ethnic origin would have been in English.

One must be cognizant of the forces, perceived and actual, that were exerted upon the minority mother-tongue population to learn English particularly in the urban environment. It would be quixotic perhaps to assume that there will be a significant or marked trend on the part of the British ethnic population towards bilingualism. growing urban population within the Atlantic region as a whole, pressures increase upon the Francophone population to learn English rather than on the Anglophone to learn French. This is partly because of tradition and, hence, there exists an inertia in the patterns of interaction between the two ethnic populations. This becomes a difficult trend either to stop or to reverse. Furthermore, the trade area of many cities extends occasionally beyond the limits of the province and communication with the English language zones has been, and will continue to be, in English.



Chapter V

THE ENGLISH LANGUAGE ZONE AND LANGUAGE ISLANDS

The computer maps of the distribution of the English and French mother-tongue populations within the province of New Brunswick illustrated the separation that existed between the two (fig. 14). The northeast area contained the majority of the "Acadian" population while the southwest had the heaviest concentration of the English mother-tonque The limits of the trade areas of the largest population. urban centres demonstrated the lack of interaction between the two groups for there was a separate alignment to cities and towns within the two areas (fig. 14). Hence, the possibilities for interaction between the majority populations of the two areas of the province, the provincial capital notwithstanding, were minimal. The ecumene map of New Brunswick illustrated the large areas in the centre of the province that were void of permanent habitation. This demonstrated clearly the geographical barrier to movement and communication that the highlands have presented over time.

The population of English home language constituted 90% or more of the total population in the counties within the southwest sector of New Brunswick (fig. 13). This percentage persisted in the rest of the Atlantic region with the exception of specific census divisions in which the populations of French mother tongue and French language of the home were sufficiently high to lower these percentages. The census divisions in which this occurred, inside the English language zone, were the areas that have been designated as language islands. (See below passim.)

Southwest New Brunswick

The growth rates in the intercensal period, 1961 to 1971, revealed that the southwest area of New Brunswick had a population increase that was about three times greater than that in the northeast area (fig. 13). In the latter the French mother-tongue population grew by less than one per cent as compared to a regional growth of almost three per cent. The population of the southwest increased by 10% between 1961 and 1971; of this population the French mother-tongue portion rose by 3,773 people, a growth of almost 30% from 1961 (table 23).

Contained within the English language zone of southwestern New Brunswick were scattered pockets of French mothertongue populations, identified by the computer in several enumeration areas as having had a ratio to the total population between 10:100 and 30:100. In certain situations when all enumeration areas were aggregated into the census subdivision this pocket of minority settlement dissolved into the English milieu. Such was the case of the census subdivision of Douglas in York County. The computer identified an enumeration area within the subdivision that had a minority mother-tongue population between 20.0% and 29.9% of the total population (fig. 13). Since the subdivision of Douglas was large in area, because of the sparse population, the percentage of the minority population for the whole of Douglas was only 4.5% of the total. Furthermore, there were only 500 people who constituted the minority within the subdivision and fewer than 60% of these people were using their mother tongue in the home. This was considered to be an insufficient minority population to avoid assimilation particularly when these

TABLEAU 23

		OTHER	NUMBER NOMBRE	+772 +24				4 73 26	22 -	348 - 4		51 -4	+ 82 + 2. -279 - 5.	9	1,136	1/3	- 74	Ø 11	-35 -17.1
	-1971	IS	dP	+15.6				- 7.5		+ 2 .5		6 6	+ 3.5	(· ·	0 0	, ,	i -	i
	: 1961	Di Di	NUMBER NOMBRE	+ 490				100		+5,200		ć ι	+3,773		200	300	# Y	000	14
	CHANGEMENT		OND	+13.9				47.9		\$ 00 4		2.2	# 6 · 8	0	","	4	33.		7
h 172	CHANGE/CH	ENGLISH ANGLAIS	NUMBER NOMBRE	+62,985				+7,536	+1,871	+31,667		. 0	+23,650	22 222	220,000	2 962	1,763	1014	1.2
POPULATION	CH	LE	OKP	+14.0+				+6.7	+2.9	+6.1	(χ « α . α	0.07		2 -	1 0	12.0	2	7
ec .		TOTAL POP	NUMBER	+64,247				+7,011	+1,,86	+36,619	,	4,184	7,330	51 953	, 4 , r	657	1.361	134	1,299
PORTIONNELLE DE LA REGION ATLANTIQUE	Si	RES	1971	0.8	0.1	2.7		1:1	0.7	H.3	(1 0.4	+ 9.	0			. 5	9	.7
SETIONN	/POURCENTAGES	S AUTRE	71 1961	.7 0.7	4	.7		6 1.1	3 0.7	0 1.5		0 1 2	-	2 2	4			0	· ·
0	S/POUR	FRENCH	1961 197	0.7 0.	15	10.		7.6 6.	6.3 14.	5.2 34.	9	0. 7.		4	-5	. 4	. 6 4	7.7 38.	i
MUMERIQUE ET PR GUE MATERNELLE, DE 1961, 1971	PERCENTAGES,	ENGLISH F	1971	98.5	84.5	9.98		92.4	85.1 1	64.7 3	0	* 0	2.8	93.0	9.4	7.0 2	57.2 4	61.4 3	67.8 3.
ON MUME LANGUE NTS DE	PER		71 1961	45 98.6	10	370		10 91.3	81 83.0	5 63.3	0	43,	5 93.	0 92.3		2	5 48.5	0 61.2	0 66.3
LA		OTHER/AUTRES	197	3 3,94		3		7 1,180	3 28	3 8,42	160	ω,	4	6 16.07	5 51	98 9	1 29	5 13	5 170
			1961	3,17				1,10	30	8,77	(*	3,44	5,01	17,20	68	1,61	44	10	20
POPULATION, 1971 CENSUSES	JOMB RE	RANCAIS	1971	3,640	795	1,455		7,360	6,005	215,730	39.130	160,015	16,585	39,335	1,275	3,820	5,155	7,730	7,785
F POPULATION , 1971 CENSU	NUMBER/NOMBRE	FRENCH/FRANCAIS	1961	3,150				7,958	6,667	210,530	43.067	154,652	12,811	39,568	1,365	4,374	5,411	7,631	7,671
SUTION O		ANGLAIS	1971	514,515	4,355	11,795		103,100	35,795	410,400	4.065		278,530	733,555	15,030	15,690	7,285	12,490	16,730
AND PERCENTAGE DISTRIBUTION OF TONGUE, ATLANTIC REGION, 1961,		ENGLISH/ANGLAIS	1961	451,530				95,564	33,924	378,633	4.156	-	254,880	680,233	12,310	12,728	5,522	12,480	15,510
RCENTAG			1971	522,100	5,155	13,640		111,640	42,080	634,555	43,350		300,035		16,815	20,375	12,735	20,350	24,685
	TOTAL	POPULATION	1961	457,853				104,629	40,894	597,936	47,534		272,705 3	737,007 788,960	14,360	18,718	11,374	20,216	23,386
NUMERICAL BY MOTHER	T	TT		NEWFOUNLAND Prov. 44	AU PORT "	WEST LABRADCF "DISTRICT" "DISTRICT" DE LABRADOR-OUEST	GENETOT GENERAL TOTAL	PRINCE-EDOUARD prov.	PRINCE COUNTY/COMTE	NEW BRUNSWICK Prov. 55	NORTHEAST AREA/REGION NORD-EST i-FRENCH ZONE/ZONE FRANCOPHONE *	ii-Bilingual Zone/Zone Bilingue ** 27	SOUTHWEST AREA/REGION SUD-OUEST *** 27	NOVA SCOTIA NOUVELLE-ECOSSE Prov. 73	MTE	INVERNESS COUNTY/COMTE	RICHMOND COUNTY/COMTE	DIGBY COUNTY/COMTE	YARMOUTH COUNTY/COMTE

* Includes Madawaska County, and the census subdivisions of Grand Falls, and the town of Grand Falls, in Victoria County. Comprend le comté de Madawaska ainsi que les subdivisions de recensement de Drummond et de Grand Falls et la ville de Grand Falls dans le comté de Victoria.

** Includes the counties of Gloucester, Kent, Northumberland, Restigouche and Westmorland. Comprend les comtés de Gloucester, Kent, Northumberland, Restigouche et Westmorland.

Includes the counties of Albert, Carleton, Charlotte, Kings, Queens, St. John, Sunbury and York, and that part of Victoria County not included within the French Language Zone.

Comprend les comtés d'Albert, Carleton, Charlotte, Kings, Queens, Saint-Jean, Sunbury et York, ainsi que la partie du comté de Victoria non incluse dans la zone linguistique française.

TABLE 24

TABLEAU 24

MOTHER TONGUE, HOME LANGUAGE AND OFFICIAL LANGUAGE DATA, FOR NORTHFIELD CENSUS SUBDIVISION (SUNBURY) AND VILLAGE OF MINTO (QUEENS), NEW BRUNSWICK, 1971

DONNEES SUR LA LANGUE MATERNELLE, LA LANGUE D'USAGE ET LA LANGUE OFFICIELLE, POUR LA SUBDIVISION DE RECENSEMENT DE NORTHFIELD (SUNBURY) ET LE VILLAGE DE MINTO (QUEENS), NOUVEAU-BRUNSWICK, 1971

	TOTAL	EMT	% of/du TOTAL	FMT FLM	% of/du roral	EHL	% of/du TOTAL	FHL	% of/du F	EHLX100 FALUX100 FALUX100 FALUX	TLU TLU TLU	OL:EO LO:AS		OL:FO	LI	OL:E&F LO:A&F	% of/du TOTAL
NORTHFIELD (census subdivision/subdivision de recensement)	725	620	85.5	06	12.4	630	87.0	15	1	101.6	16.6	550	. 87	0	3	75	10.3
MINTO (village)	3,880	2,900	74.7	845	21.8	3,345	86.2	445	11.5	115.3	52.7	2,880 .86	98.	55	.12	006	23.2
Total	4,605	4,605 3,520 76.4	76.4	935	935 20.3 3,975	3,975	86.3	460	10.0	112.9	49.2	49.2 3,430 .86	. 86	55 .12	.12	975	21.2

Sources: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.

people were living within an English language zone in which the language intensity index of the majority population was .97. The Douglas subdivision, therefore, could not be classified as a language island.

One area in which the French mother-tongue population was well represented was in the northern part of Sunbury and Queens counties (fig. 12). The census subdivision of Northfield and the village of Minto, although situated in separate counties, were contiguous, and therefore could be treated as one region of minority settlement. While the absolute number of people of French mother tongue was greater here than in the subdivision of Douglas in York county, there had been a decrease in this minority population of about 38% in the intercensal period from 1961. In addition to the problem of declining numbers, the percentage of those people who were actually using the mother tongue as the language of the home had dropped below fifty, a threshold given by Vallee and Dufour as critical for language maintenance (table 24).

This low ratio of home language population to mother tongue population was reflected in a language intensity index that was very close to zero. Very few people spoke French only in these communities, and this was in part because of their location within the English language zone. There were undoubtedly people of French mother tongue who were not only using English as the language of the home but who had lost their ability to speak their mother tongue. As a result the unilingual English population in the area could have been under-represented and the bilingual population over-represented (table 24).

^{1.} Vallee, F.G. and Dufour, A., op. cit.

These particular misrepresentations of the unilingual English and bilingual populations may not have been of the same magnitude as those that occurred in French communities in other parts of the English language zone beyond New Brunswick (See below, passim). Proximity to the bilingual zone suggested that radio, television and newspaper services in French were available if the people wished to use them. Since New Brunswick was the only province in Canada that had passed language legislation to make the province officially bilingual, provincial and municipal services could have been made available in French to those within the English language zone who desired them. Northfield and Minto were inside the designated trade area of Fredericton, the capital of the province, and, presumably, the centre in which the greatest range of governmental services would be available in English and French. One could only surmise whether the members of the minority population within the English language zone would avail themselves of these services.

The cities of Fredericton and Saint John contained over half of the French mother-tongue population of the southwest region (57%), and it was in and around these two centres, as in Moncton, that the growth rate of the minority had been strong relative to the rate of the rest of the province. It was not possible to make an absolute comparison between the two cities for various years as census boundaries had been altered during the intercensal period to accommodate changes in the distribution of the urban po-Nevertheless, the minority French mother-tongue pulation. population in the metropolitan area and in the small communities within commuting distance had increased by over one thousand people in each of the two cities. Unfortunately the French mother-tongue population in these urban centres did not have the language retention levels found in the

Figure 18



TABLE 25

MOTHER TONGUE, HOME LANGUAGE AND OFFICIAL LANGUAGE DATA FOR ANGLOPHONE AND FRANCOPHONE COMMUNITIES, FREDERICTON AND SAINT JOHN, NEW BRUNSWICK, 1971

TABLEAU 25

DONNEES SUR LA LANGUE MATERNELLE, LA LANGUE D'USAGE ET
LA LANGUE OFFICIELLE DES GROUPES ANGLOPHONE ET FRANCOPHONE
DE FREDERICTON ET DE SAINT-JEAN, NOUVEAU-BRUNSWICK, 1971

% of/du TOTAL	8.0	8.7
OL:E&F LO:A&F	210 .20 3,015	650 .19 9,305
111	.20	.19
OL:FO LO:FS	210	
	96.	.94
FHL FMT FLU FLU FLM FLM	53.2 34,485 .96	104.7 47.0 96,630 .94
FHL FMT FLU FLU FLM	1	47.0
* S Of/du EHLX100 FHLX100 OI TOTAL ALUX100 FLUX100 LC	104.8	104.7
% of/du TOTAL	2.8	3,500 3.3
FHI	1,050	3,500
% of/du TOTAL	95.7	1.96
EHL	1,975 5.2 36,110 95.7	7,450 7.0 102,495 96.
% of/du TOTAL	5.2	7.0
FMT	1,975	7,450
% of/du TOTAL	37,745 34,470 91.3	92.0
EMT	34,470	97,860
TOTAL	37,745	106,695 97,860 92.0
	FREDERICTON, C.A.	SAINT-JEAN, C.M.A.

C.A.: Census Agglomeration

A.R.: Agglomération de recensement

C.M.A.: Census Metropolitan Area

R.M.R.: Région métropolitaine de recensement

Sources: Statistics Canada/Statistique Canada, Catalogues 92-726, 92-725.



cities of the bilingual zone of the northeast. In the census agglomeration of Fredericton only 53% of the minority mother-tongue population were using French in the home. The language intensity index for this group was low at .20 while the same index for the Anglophones was close to unity at .96. Hence, in spite of the location of Northfield and Minto, and other pockets of Francophone communities within the trade area of Fredericton, the capital exhibited the characteristics of an assimilating centre that were found in so many cities outside the French language zone.

In the census metropolitan area of Saint John the language retention level was even weaker than in Fredericton. Of a French mother-tongue population of over seven thousand, fewer than half were using the language in the home. The spread between the indices of language intensity for the two official language groups was slightly greater in Saint John than in the provincial capital (table 25).

One explanation for the decline of the minority language in Saint John was found in the patterns of the distribution of the population within the census metropolitan area (fig. 18). Of the twenty-nine census tracts in the city, only nine had a French mother-tongue population that was between 10% and 20% of the total population. These census tracts contained less than 46% of the minority group for the entire metropolitan area. Of these nine census tracts only three had a French home-language population that was greater than 50% of the French mother-tongue population.

In the other census tracts, and in the fourteen suburban towns and villages that were within the census metropolitan area of Saint John, the minority mother-tongue population was less than 10% of the total population for each. Since the French mother-tongue population constituted only seven per cent of the total population of Saint John, such a pattern of dispersion and low language-usage ratios was not considered conducive to the retention of the language beyond or even within the home.

These urban places displayed similar characteristics to those that were analysed in Nova Scotia and Prince Edward Island (See below). The decline of the ratio of French mother tongue to total population as one moved from a rural to an urban environment was accompanied by a weaker ratio, for the minority, of the language-of-the-home population to mother-tongue population. It seemed that urban employment and the patterns of social interaction in towns and cities had taken, and may continue to take a toll upon minority language retention in the language islands beyond the French language zone and the bilingual zone of New Brunswick.

Prince County, Prince Edward Island

In the northern county of Prince in the province of Prince Edward Island a heritage of isolation and ethnic concentration among the Francophone population was evident. Almost two-thirds of the French ethnic population of the entire island province was located in this county. Similarly, as one progressed through the tabulations of the language related questions of the 1971 census it became apparent that Prince County did indeed contain the predominant Acadian element of the province. Of the entire French mother-tongue population of Prince Edward Island over 80% lived in Prince County. These percentages increased to greater than ninety for the French home language and unilingual French populations of the province (table 26).

One interesting feature obtained from the data in Table 26 was that although the above percentages intensified

TABLE 26

Language-Related Data for Francophone Community, Prince County, Prince Edward Island, 1971

TABLEAU 26

Données linguistiques sur le groupe francophone, Comté de Prince, Ile-du-Prince-Edouard, 1971

Population	Provincial Total provincial	Comté de	total	
French ethnic origin Origine eth- nique française	15,325	9,875	64.4	23.5
French mother tongue Français langue maternelle	e 7,360	6,005	81.6	14.3
Language-of- the-home: French Français langue d'usage	4,405	3,995	90.7	9.5
Official language French only Langue officielle Français seulemen	9	635	94.1	1.5

Source: Statistics Canada, Catalogues 92-726, 92-773. Statistique Canada, Catalogues 92-726, 92-773.

groupes té de 1971	LI	.16	LI IL	.92
ues sur les cophone, Com nce-Edouard,	OL:FO LO:FS	635	OL:EO LO:AS	34,960
TABLEAU 27 Données linguistiques sur les groupes anglophone et francophone, Comté de Prince, Ile-du-Prince-Edouard, 1971	FHL FMT FLU FLU FLU	66.5	EHLX100 EMTX100 ALUX100	106.1
TABLEAU Données angloph Prince,	% of/du total	9.5	% of/du total	90°3
phone rince 1971	FHL	3,995	EHL	37,985
s for Angle ulations, F rd Island,	% of/du total	14.3	% of/du total	81.5
TABLE 27 Language Tabulations for Anglophone and Francophone Populations, Prince County, Prince Edward Island, 1971	FMT FLM	6,005	EMT	35,795
TABLE 27 Language and France	Total Pop. totale	42,080		

Source: Statistics Canada, Catalogues 92-726, 92-773. Statistique Canada, Catalogues 92-726, 92-773.

areally there was a marked decline among the absolute figures for each of the language-related populations for the province and for the county. Of the population of French ethnic origin in Prince County (9,875) only 61% registered French to the mother-tongue question of the 1971 census: "Which language did you first learn as a child and still understand?" For the province as a whole the gradient was much steeper for the Francophone minority as only 48% had retained their mother tongue. It should be re-emphasized that this did not indicate that approximately 61% of the population of French ethnic origin were French-speaking in Prince County.

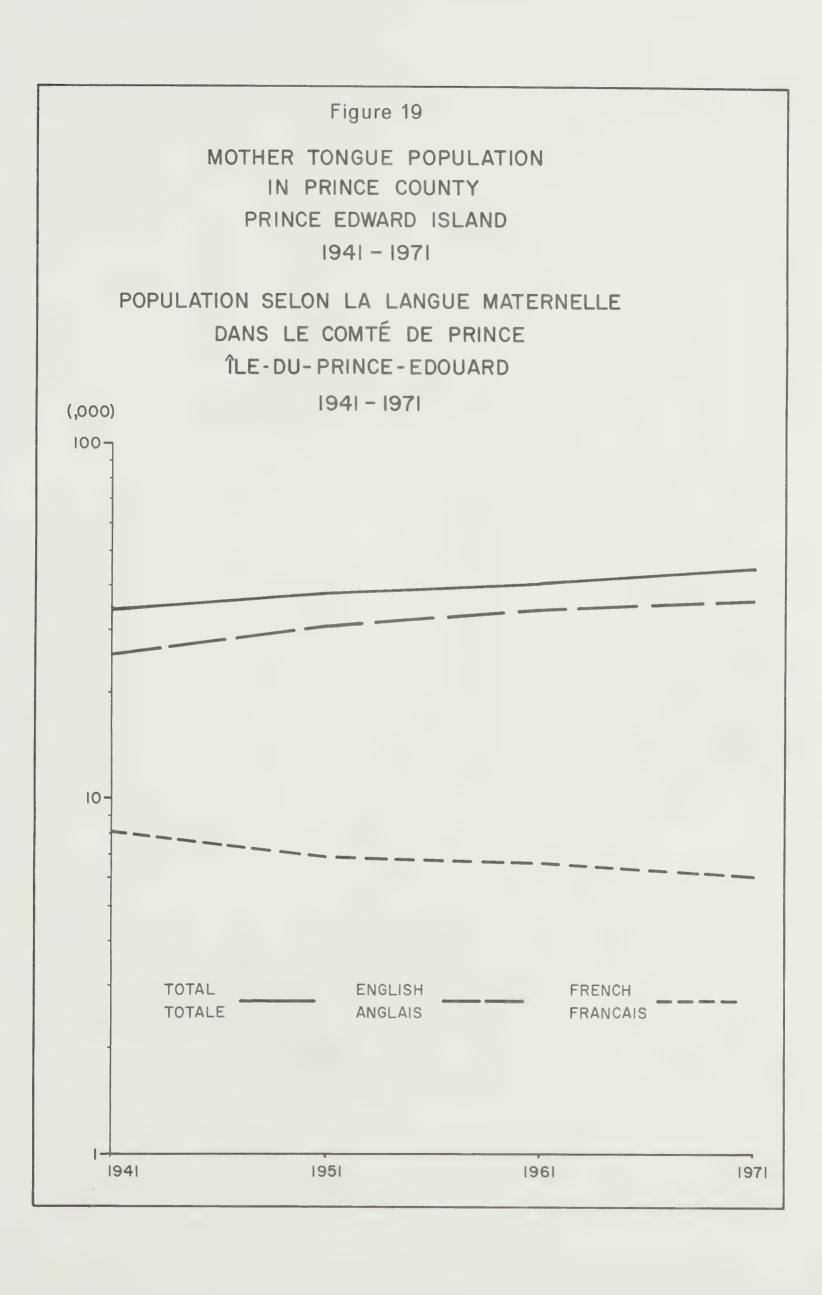
To determine the ratio of the minority community who retained their language it was necessary to relate the French home-language population to the French mother-tongue population. At 66.5% this could not be interpreted as particularly strong when one considered that these people were the descendants of an Acadian population who sought refuge in northern Prince Edward Island (Isle St. Jean) in 1755 to escape expulsion to British colonies on the eastern seaboard of the United States. When the language intensity index was calculated for the Francophone community of the county, it too was very low at .16, particularly when compared to that of the Anglophone population at .92. The reasons for these low levels of language retention could be explained, in part, by the assimilation and emigration of the Francophone population and by the spatial characteristics of this minority group (table 27).

People "retained" their ethnic origin according to census designation, as traced through the male side of the ancestor who first arrived in Canada, in spite of the change in their mother tongue. While the population of French ethnic origin in Prince County maintained a rate of growth

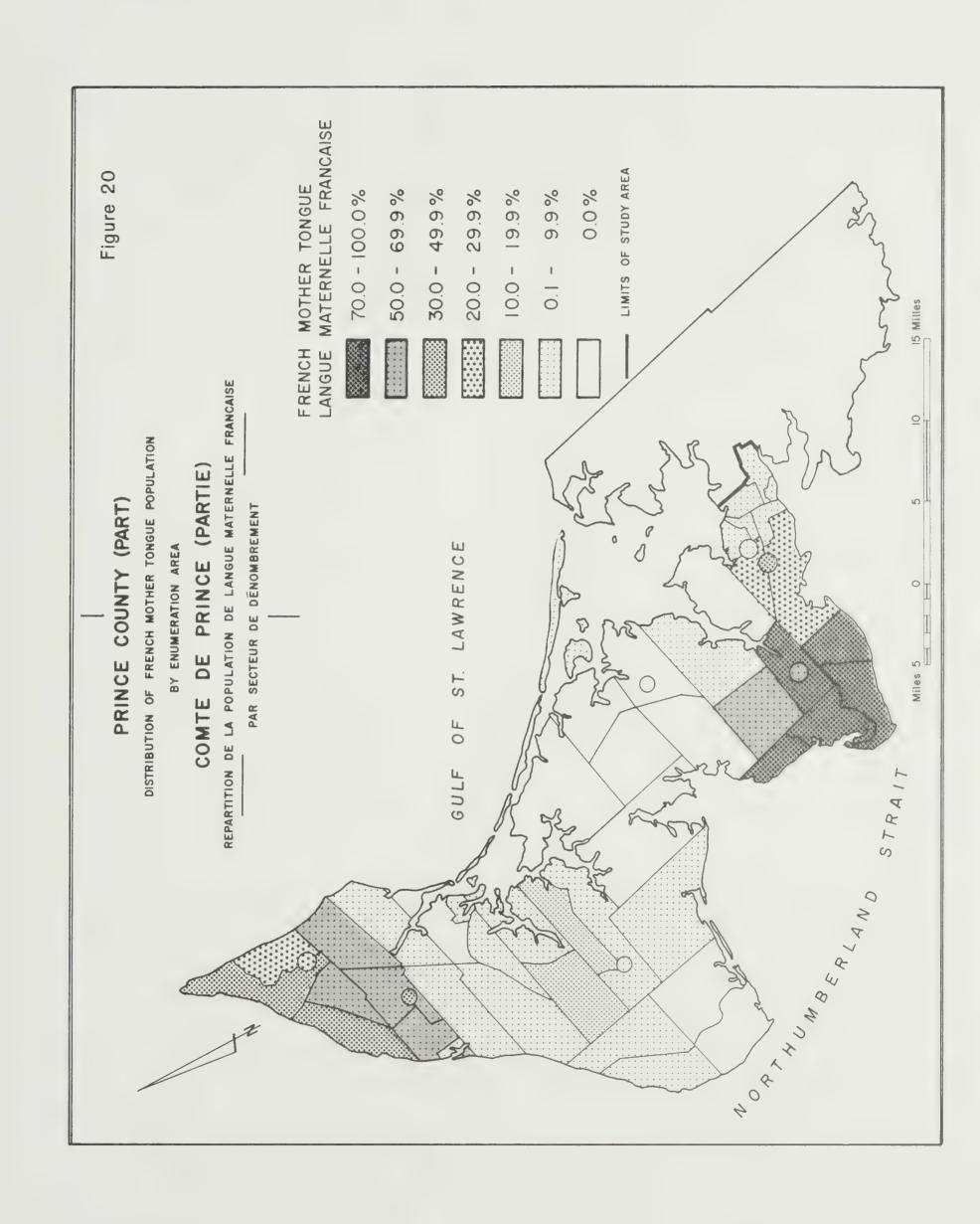
that was approximately equal to that of the population of British ethnic origin, between 1921 and 1961, the rate of change for the population of French mother tongue was negative. Since 1961 there had also been a negative rate of change for the population of French ethnic origin. The slope of the line for the French mother-tongue population was particularly revealing for it indicated that since 1941 there had been an apparent loss of people to the English mother-tongue population through assimilation as well as an out-migration of people of French origin (fig. 19).

Compounding this problem of population decline was the areal distribution of the French mother-tongue population within Prince County. When data were presented by census division alone (the county in Prince Edward Island) there was the possibility that people would be left with the impression that the minority population was evenly distributed throughout. The map of the distribution of English and French mother-tongue populations, by enumeration areas, demonstrated how erroneous this impression could be. The French mothertongue population was polarized between the northern and southern townships of the county. The southern concentration was in the vicinity of the village of Wellington and the south shore of Egmont Bay. The strongest concentration, in terms of absolute numbers, was the latter where the Francophones constituted at least 70% of the total population in five enumeration areas and at least 50% of the population in two other enumeration areas.

Between the two groups there was a "trough" where a low, or zero, proportion of the French mother-tongue population to the total population accompanied a lower total population per township than was found in the northern and southern townships (fig. 20). The probability of interaction between the two minority language groups was









considered to be low. When one considered the distances involved and the predominantly agrarian economy of the region one had to assume that there would be little opportunity or incentive for social interaction between the two areas and hence little or no reinforcement for the northern minority population where their "language ratios" were much weaker. The rate of decline of the French mother-tongue population in the northern townships had accelerated since 1951 and exceeded that of the southern concentration. Concurrently the rate of change for the population of English mother tongue had been steady and gently upward.

Since 1941 there had been a reduction in the number of farms throughout Prince Edward Island and a concomitant increase in farm size. Mechanization and improvements in farm management raised production and farm incomes and as a result small farms, and owners who were hesitant to change production methods, were placed in a precarious position. Many of these marginal farmers left the land, with the rate of abandonment greatest in poorly drained areas. Westcentral Prince County was burdened with large areas of flat terrain that had a local relief of less than 2.0% and consequently many fields were not suited to mechanized cultivation².

The population pyramid of the total population and of the French mother-tongue component of Prince County illustrated a situation that had become endemic to the Atlantic region of Canada. There was a marked decline in the age cohorts between 20 and 35 that reflected the inability of the local economy to absorb these essential wage-earners. Consequently there was an overbalance among the

^{2.} Raymond, C.W. and Rayburn, J.A., Land Abandonment in Prince Edward Island, Geographical Bulletin, 19, Geographical Branch Department of Mines and Technical Surveys, Ottawa, 1963.

very young and the aged within this population and, as the teen-agers attained a labour market age, it was considered probable that they would continue the above trend and seek employment beyond Prince County, perhaps outside the province altogether. For the minority population this loss would trim the profile further so that this component which can add vitality to a minority language group would be lost to the community. This loss was already evident in the marked decline in the birth rate since 1961 in the census division. The lowest cohorts, 0 to 4 and 5 to 9 had fallen behind the 10 to 14 age group (fig. 21)*.

The southern Francophone community in Prince County was located within the trade area of the town of Summerside. Many of the rural non-farm residents of townships 14, 15, 16 and 17 commuted to jobs within or near the town. Research into the journey-to-work habits of the labour force in selected centres throughout the three maritime provinces revealed that over 20% of the labour force in Summerside travelled over 20 miles, one way, to work. This was the highest proportion among the centres tested. The townships of the southern minority were partially within the 20-mile radius of this urban centre.

^{*} In some situations the decline in the 0-4 cohort could be explained, in part, by the loss of French as the language of the home for parents in the 20 year-plus cohorts. If the language of the home is English for parents of French mother tongue the children under 5 years are classified as having English mother tongue (Catalogue No. 92-773, Statistics Canada). This would be more common in language islands, such as in Prince County, or in a large city such as Moncton. In the latter intermarriage, or the choice of English as the home language, would be more likely to occur because of interaction in an urban environment in which the Franco-phones are in a minority.

^{3.} Atlantic Development Board, Background Study #7, op. cit.

Figure 21 EGMONT AREA P.E.I. RÉGION D'EGMONT I-P-E.

POPULATION SELON LA LANGUE MATERNELLE, 1971 POPULATION BY MOTHER TONGUE, 1971

TOTAL POPULATION TOTALE

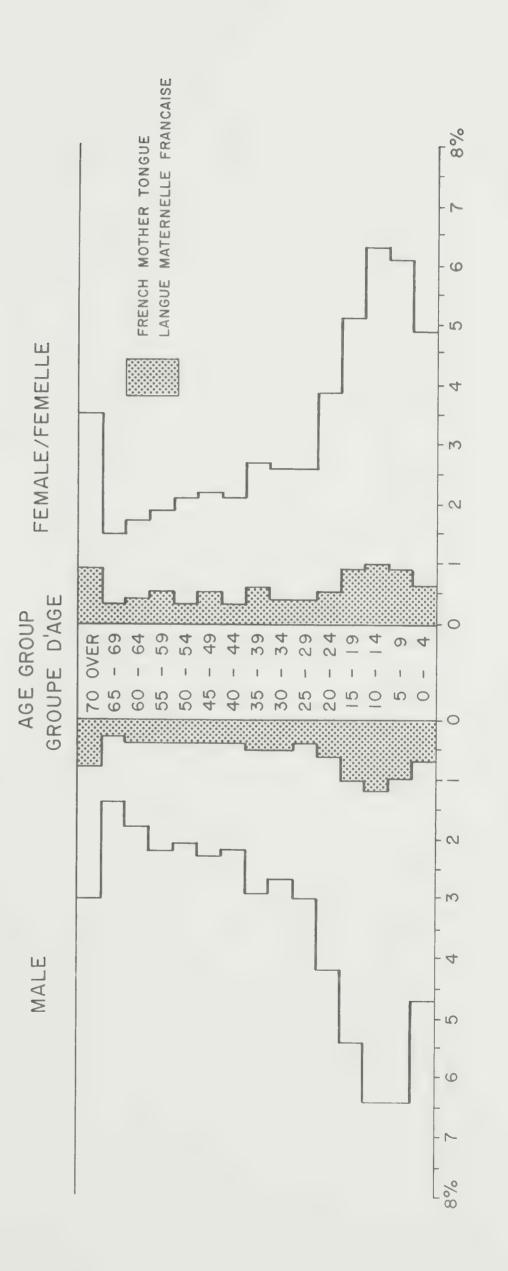




TABLE 28				TABLEAU	000		
Language-Related Data for and Francophone Communitie Summerside, Prince County, Prince Edward Island, 1971	lated Datahone Commu Prince Cord	Language-Related Data for Anglophone and Francophone Communities, Town of Summerside, Prince County, Prince Edward Island, 1971	hone n of	Données anglopho Summersi Ile-du-P	Données linguistiques sur les groupes anglophone et francophone, ville de Summerside, comté de Prince, Ile-du-Prince-Edouard, 1971	s sur les phone, vil Prince, d, 1971	groupes le de
Total pop. totale	EMT	% of/du total	EHL	% of/du total	EHLX100 ALUX100 ALMX100	OL:EO LO:AS	LI
9,440	8,520	90.3	9,130	97.0	107.2	8,175	06.
	FMT	% of/du total	FHL	% of/du total	FHL FMT FLU FLU FLM	OL:FO LO:FS	TI
	880	9.3	300	3.1	34.1	20	* 4 4 0 *
	OL:E&F LO:A&F	% of/du total					
	1,255	13.3					

Statistics Canada, Special tabulation. Statistique Canada, Tabulation spéciale. Source:

Accuracy of this tabulation questionable because low numbers involved L'exactitude de cette tabulation n'est pas sûre à cause des faibles effectifs en cause.



Summerside was classified as one of the "growth centres" of the Atlantic region but it was not a centre conducive to French language maintenance. Though it had a French mother-tongue population that was larger than the entire minority population in the Port au Port census subdivision of Newfoundland (see below) fewer than one-third of these urban residents had maintained their language in the home. Rural non-farm residents who obtained employment in this urban centre could form new social commitments that would erode traditional community patterns that, heretofore, had reinforced language maintenance in Prince County.

In summary, the French mother-tongue community in Prince County had to contend with a polarization of population distribution and the associated problems of maintaining social contacts. The minority population had been declining relative to the total population of the county. This loss had taken place through assimilation and the outmigration of the most important age-groups of the community. As the trade area and labour market of Summerside penetrated the southern pocket of the minority settlement, more people of French mother tongue were drawn into a community that was conspicuously Anglophone (table 28).

Port au Port Peninsula, Newfoundland

The population of the Port au Port Peninsula had a coastal distribution and a seaward orientation. The rugged interior of the Peninsula, rising abruptly to over 1,000 feet inland from the south shore, restricted movement to sea traffic or along the single highway that serviced part of the Peninsula. The road provided only partial linkage among the communities that dotted the coast, for between Cap St. George and the hamlet of Mainland, along the north-west coast, the highway for incomplete (fig. 22).

From 1951 there had been a steady decline in the French mother-tongue population in census division number 4, Newfoundland, of which Port au Port Peninsula was a part. Within this census subdivision, on the other hand, there was a small increase in the minority population between 1961 and 1971 but its rate of increase (8.7%) was below that of the English mother-tongue population for the same area (12.6%). Hence the French mother-tongue population as a percentage of the total population declined from 13.1% in 1961 to 12.6% in 1971 (1961 Census limits).

In spite of the relatively low rate of increase among the French mother-tongue population of the Peninsula, the percentage of this minority group which was using its language in the home was higher than was found among the minority population of Prince County in Prince Edward Island. Of the total French mother-tongue population in Port au Port 72.3% were actually using the language in the home. While this figure seemed considerably larger than in Prince County, it was not as strong as those found in census divisions within the bilingual zone. Furthermore, since we were considering a fairly small minority population, any decline in the number who used the language would have a marked effect on this percentage.

When one attempted to use data on the language of the home or official language from the census subdivision, the reliability of the figures given for the various populations was rather low because of the small numbers involved, the rounding procedures of Statistics Canada designed to maintain confidentiality, and because of editing procedures explained previously. Eighty per cent of the Francophone population of the entire census division lived in the Peninsula of Port au Port and so calculations provided for the entire census division were fairly representative of that subdivision.

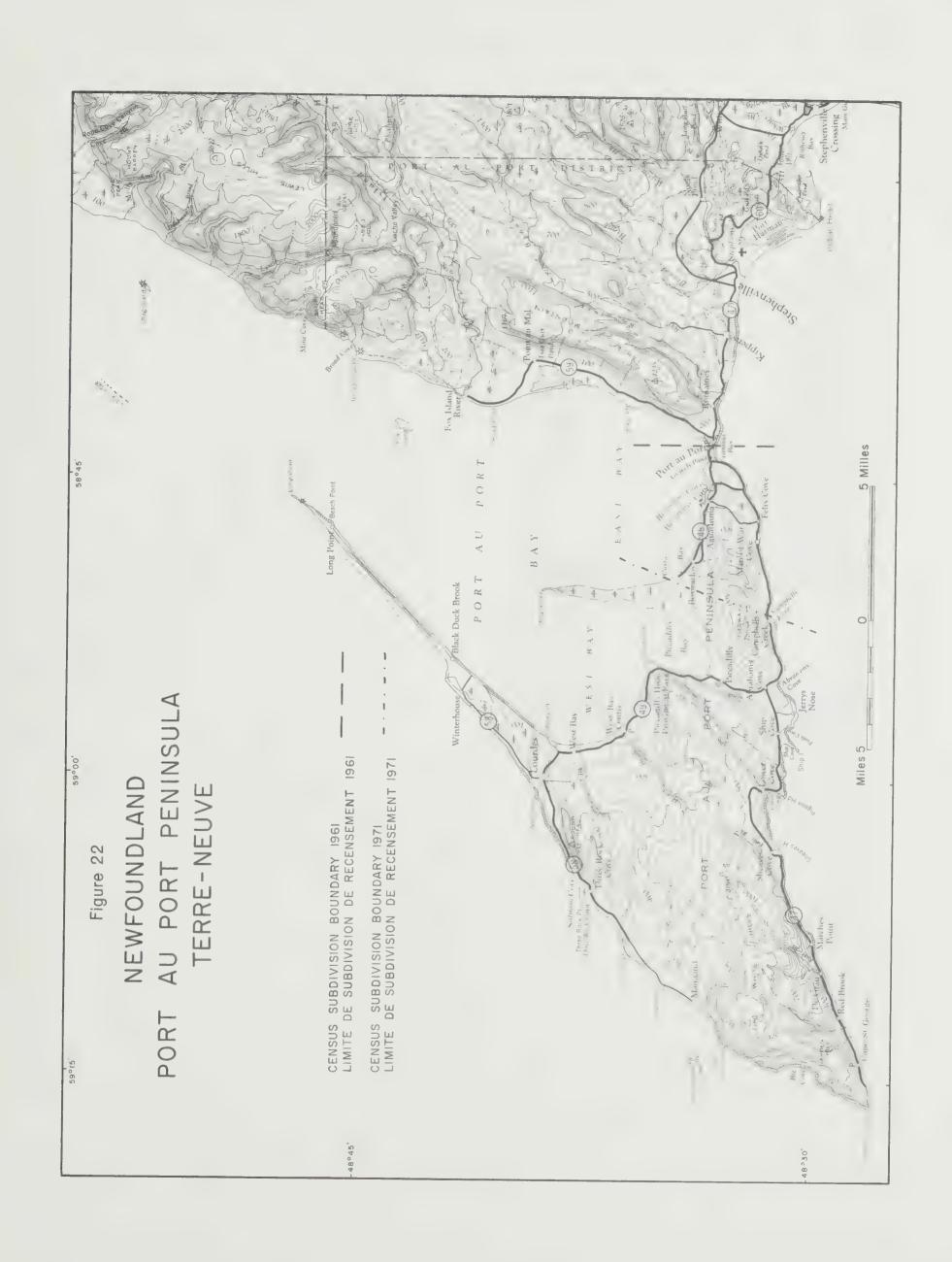




Figure 23
Port au Port
Newfoundland/Terre-Neuve

Subdivision de Recensement E, Division de Recensement 4 Census Subdivision E, Census Division 4

(Port au Port Peninsula, Cape St. George, Petit Jardin, Grand Jardin, De Grau, Marches Point, Loretto, Sheaves Cove, Lourdes)

Age Composition of Total Population, 1971 Groupes d'Age de la Population Totale, 1971

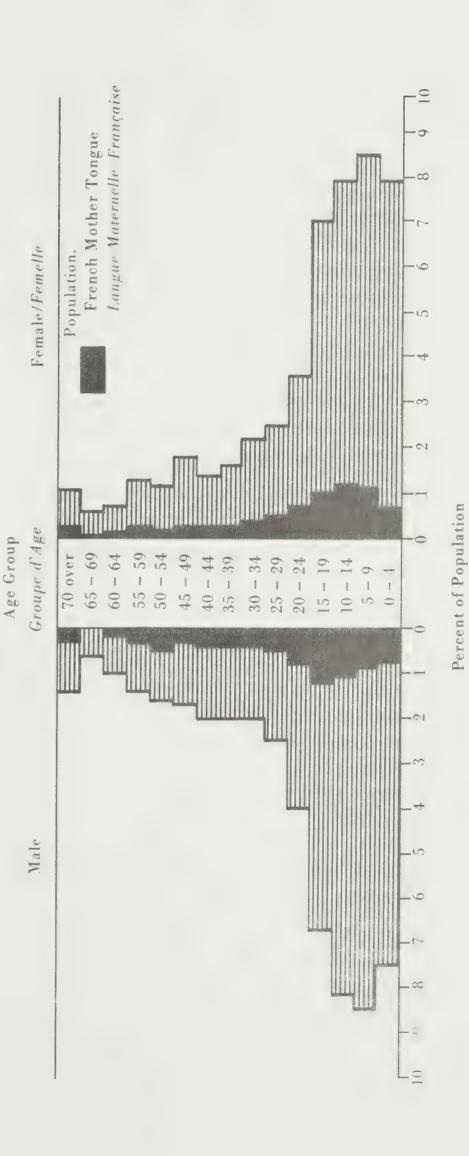




Table 29 provided information on language data for census division #4 Newfoundland. The French home-language population was only 58.3% of the French mother-tongue population and the language intensity index for the Francophone population was very close to the zero level at .07. For the Anglophones of the census division the language intensity index was close to unity at .95. The Francophone population had experienced assimilation, loss of population and the necessity to learn English to converse with people of the other official language who were almost entirely unilingual. It was assumed that the latter were slightly under-represented because of editing procedures of Statistics Canada. In other words, the bilingual population for census division #4 at 2,060 was probably over-represented because of these editing procedures and because of the strength of English as the language-of-the-home and the high language intensity index for the Anglophones of the region (table 29).

In relation to this statement of the tenuous ratios among the minority, the population pyramid, which illustrated the cohorts of the French mother-tongue population relative to the total population, substantiated a forecast of decline. Within the minority there was a marked drop-off in the proportion of the 0 to 4 and 5 to 9 year age-groups. This probably reflected the out-migration of the young wage-earner group to jobs beyond the Peninsula. By 1981 this erosion of the pyramid may have moved upward so that it is probable that the older cohorts will comprise an even more unbalanced proportion of the population than was apparent in 1971 (fig. 23).

Although the study of urban places in the Atlantic Provinces by the Atlantic Development Board in 1969 placed part of the Peninsula within the regional trade area of Corner Brook, there existed a smaller service centre, close to the subdivision — the town of Stephenville. In spite

of the town's situation just across the isthmus, the western half of the Peninsula was designated as an "isolated area" since it was not within 30 miles by highway of this major shopping centre. Whereas this was admittedly an arbitrary measure of isolation, it provided an indicator of "exposure" to Stephenville, a community of over 7,000 people of whom 98% were of English mother tongue. area boundaries are extended when the level of income of a peripheral population increases, when transportation routes are improved to lessen time-distance linkages, or if the economic base of the centre expands, thereby increasing the radius of a journey-to-work labour force. The Corner Brook-Stephenville region was classified as a growth area within Newfoundland and any success in such development was bound to have an impact upon the designated "isolated area" of Port au Port (table 30).

As stated above, it was assumed that the geographical location of this minority group — dispersed in a peninsula environment which reinforced isolation — had contributed strongly to language maintenance. However, with such a small population, the slightest change in growth, attraction to job opportunities to the Corner Brook-Stephenville development area, or the expansion of the Stephenville trade area could have an atrophying impact upon this culture-group. It simply lacked the population size and significant language vitality to withstand alterations in life-style or in patterns of human interaction.

West Labrador, Newfoundland

The activities of mining and community development in Labrador were concentrated along a belt of rock that extended along the west side of Ungava Bay and south eastward

TABLE 29 Language-Related Data for English and Populations, Census Division #4, Newfoundland, 1971	ted Data for Census Div. 1971	or English a ision #4,	nd French	TABLEAU 29 Données li anglophone recensemen	linguistigne et francent no 4, 7	TABLEAU 29 Données linguistiques sur les groupes anglophone et francophone, division d recensement n ^o 4, Terre-Neuve, 1971	groupes vision de 1971
Total pop. totale	EMT	% of/du total	EHL	% of/du total	EHL EMT ALU ALU ALM	OL:EO LO:AS	LI
28,350	26,950	. 95.1	27,595	97.3	102.4	26,246	. 95
	FMT FLM	% of/du total	FHL	% of/du total	FHL FMT FLU FLU FLM	OL:FO LO:FS	LI
	1,260	4.4	735	2.6	58.3	50	. 07
	OL:E&F LO:A&F	% of/du total					
	2,060	7.3					

Statistics Canada, Catalogues, 92-726, 72-773. Statistique Canada, Catalogues, 92-726, 72-773. Source:

TABLE 30				TABLEAU	30		
Language-Related Data for Anglophone and Francophone Communities in Town of Stephenville, Newfoundland, 1971	ated Data one Commu	for Angloph nities in To oundland, 19	lone own 171	Données angloph Stephen	Données linguistiques sur anglophone et francophone Stephenville, Terre-Neuve,	es sur les groupes ophone de -Neuve, 1971	onbes
Total pop. totale	EMT ALM	% of/du total	EHL	% of/du total	EHL EMT ALU ALU ALM	OL:EO LO:AS	LI
7,770	7,590	7°26	7,560	97.3	9.66	7,405	8 6.
	FMT FLM	% of/du total	FHL	% of/du total	FHL FMT FLU FLU FLM	OL:FO LO:FS	LI
	135	1.7	15	0.2	11.1	0	man and the state of the state
	OL:E&F LO:A&F	% of/du total					
	175	2.3					

Source: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.

to the Labrador City-Wabush region (Carol Lake). This geological formation, known as the Labrador Trough (a geosyncline), was one that was favourable for the location of iron deposits and base metal deposits (copper, nickel, zinc, and lead). It was possible to extract the iron ore through open pit, capital-intensive processes, thereby achieving high production with relatively low manpower requirements and low cost operations.

The first major ore bodies were discovered three hundred and sixty miles from Sept-Iles but limited exploration was done in the area before the end of World War II. This site was considered to be too remote and, at the time, markets for iron ore were limited. Demand rose in the late nineteen forties and early fifties with the wartime depletion and increasing costs of extracting ore from traditional sources. The Quebec-Labrador deposits were assessed as exploitable during this post-war boom and by the end of 1955 the Iron Ore Company of Canada (I.O.C.C.) had spent \$255 millions on the region before a ton of ore had been shipped. This was the largest capital expenditure in the history of mining to that date. Included in this expenditure was the construction of the 360-mile Quebec North Shore and Labrador Railway, a line built without government subsidy from Sept-Iles, on the Gulf of St. Lawrence, to Schefferville, Quebec, across West Labrador (fig. 24).

A disadvantage to the I.O.C.C. operation at Knobb Lake* was the seasonality of the operation which caused large lay-offs of the summer labour force. During the autumn months the loads that were shipped to Sept-Iles froze in the rail cars because of the high moisture content of

^{*} Knobb Lake was renamed Schefferville after Mgr. Scheffer, Bishop of the Roman Catholic diocese of Labrador.

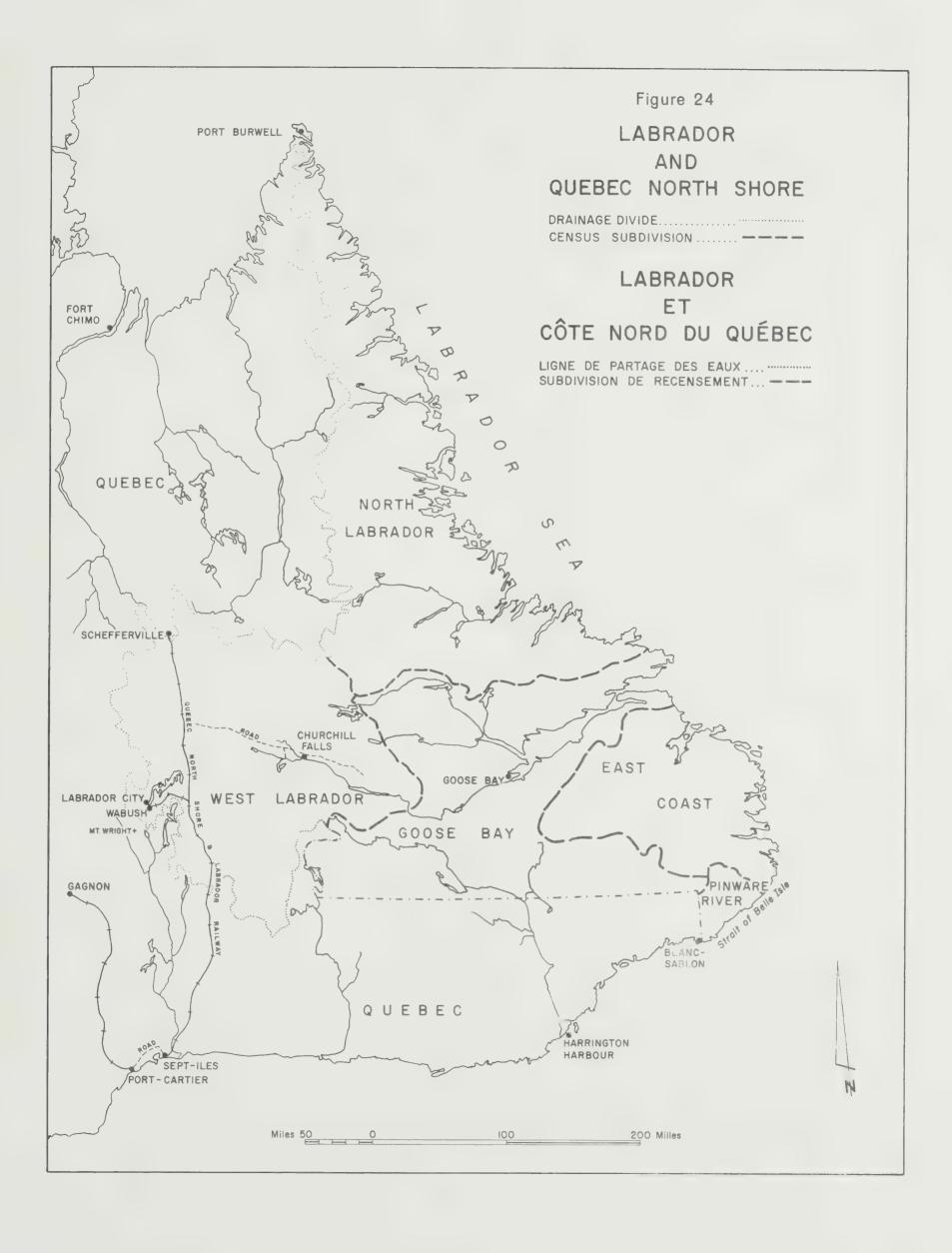
the ore. The port facilities at Sept-Iles were unable to handle an 80-ton lump of frozen ore and so the mining season was restricted to a 180 or 195-day operation. Since 1957 dewatering operations in the pits, to lower the water table, and the construction of an ore drying plant at Sept-Iles decreased the winter lay-offs from 32% of the summer labour force to 17% in 1967⁴. In addition to moisture reduction operations, winter stripping and pit preparation added to the relative stability and permanence of the community.

The Carol Project - Labrador City

The urge to reduce production costs among the steel producers of North America was a stimulus to the development of new techniques in the preparation of ore. Beneficiating technology, whereby ores of low iron content are reduced in mass to eliminate waste, permitted a reappraisal of ore bodies formerly considered to be too poor for extraction. In the area of Labrador City large deposits of low grade ores were suited to the new processing techniques. With no permafrost to interfere with winter operations, shipping of the ore could be year-round rather than seasonal as at Schefferville. The presence of the Quebec North Shore and Labrador Railway facilitated the exploration and construction phases of the Carol project. With the development of winter navigation in the Gulf of St. Lawrence and the construction of the St. Lawrence Seaway, the ores of Labrador became competitive in the markets of the central United States and Western Europe 5.

^{4. &}quot;Bleak Labrador Takes on an Industrial Look", Financial Post, 65:40, June 19, 1971.

^{5.} Hollinger-Hanna Ltd. "Submission to the Royal Commission on Canada's Economic Prospects", Montreal, 1956.





In 1958 the decision was made by I.O.C.C. to begin mining and to construct a concentrator in Labrador; in 1960 the construction of Labrador City was started. The town was planned by H. Dineen and Associates for I.O.C.C. and was designed to have a core area that would accommodate churches, schools and a commercial zone. At the time that the site for Labrador City was under construction, the Wabush Mines Company was still negotiating for market contracts. Since I.O.C.C. had made no provision to expand Labrador City beyond its own projected requirements, the labour force for Wabush could not be accommodated. To develop the town further would place the Wabush Company in the position of relinquishing planning and organization to I.O.C.C. Rather than do this the Company decided to build its own townsite. At the time, the government of Newfoundland had no experience in the planning and construction of a community that would accommodate both operations and, therefore, the task was given to the companies. Unfortunately, the existence of two towns in such proximity resulted in a costly duplication of services 6.

The concept of permanence of residency in these northern communities is relative and not applicable to communities in southern Canada. Hilton has suggested that permanency in this environment must be considered a stay by the migrant of a period that is longer than the average for a particular community. If one accepts this definition one is able to calculate a "turn-over ratio" for any community. This was defined as the total number of terminations as a percentage of the average labour force for a given period.

^{6.} Hilton, K.D., Iron Mining Communities of Quebec-Labrador:

<u>A Study of a Resource Frontier</u>, unpublished M.Sc. thesis,

McGill University, Montreal, 1968.

^{7.} Hilton, K.D., ibid., p. 76.

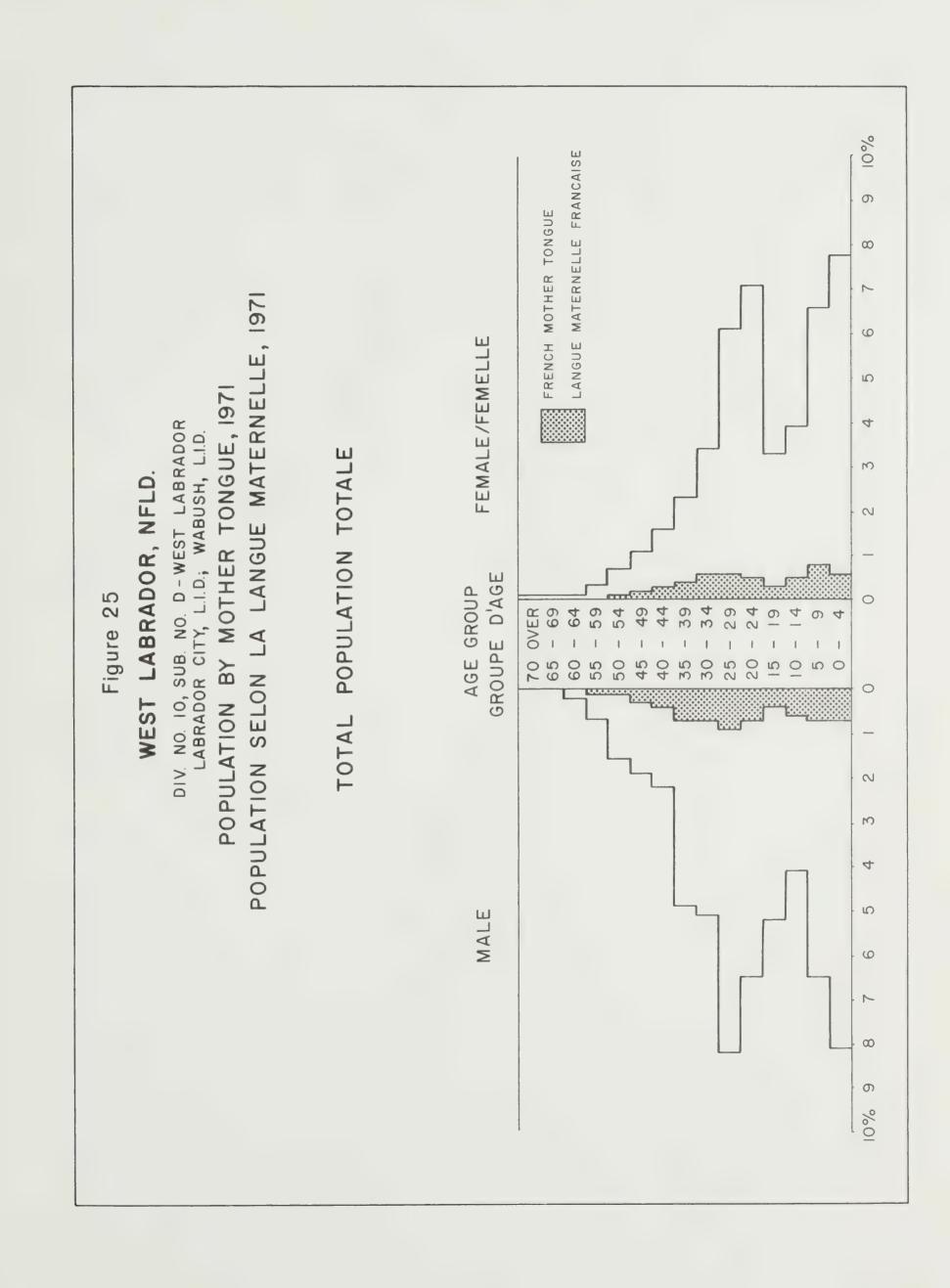
With advanced mining technology in the Schefferville operation, the possibilities for year-round employment at Labrador City/Wabush, and the improved living facilities there, the percentage turn-over improved from 1958 to 1965. This in turn was reflected in the average-length-of-stay for the labour force. In December 1963, Hilton calculated that it was 6.1 years and by December 1965, it had increased slightly to 6.4 years. A division of the labour force into married and single men illustrated the permanency of the two groups.

- 1. (1965) Average length of stay, married men: 7.5 years
- 2. (1965) Average length of stay, single men: 4.4 years. As one would expect, the companies preferred to hire married men wherever possible 8.

At Churchill Falls, for those who are fascinated by size comparisons and astronomical dollar expenditures, the installation was the largest single-site hydro-electric development in the western world and had the largest underground power-house in the world. This complex cost approximately \$950 millions. As of June 1972 the power development project was about 85% complete and during the peak construction period, in 1971, employed a work force of 6,3009. The Churchill Falls, Labrador Corporation Limited (a subsidiary of Brinco Limited) has a 65-year power supply contract with Hydro-Quebec with a total value of about five billion dollars.

^{8.} Hilton, K.D., op. cit. See also, Chisholm, K., "Permanent Population Enjoys the Good Life", The Atlantic Advocate, 62:14, July, 1972.

^{9.} The project at Churchill Falls is now complete. The dates that are given in this report are 1971 and 1972 to coincide with census data and to emphasize the significance of the site as labour-attractive.





Studies completed by Brinco established the feasibility of building another hydro power installation on the lower Churchill River about 130 miles downstream from the Churchill Falls project. Furthermore, when the plans for iron ore extractions in the vicinity of Mount Wright in Quebec, across the provincial boundary from Labrador City and Wabush, are considered, it is evident that as a high-income and hence labour-attracting region this frontier will be an expanding area for many years and one that must accommodate a labour force of both official language groups.

This dynamic, high-income region was in marked contrast to the communities of French mother-tongue population in the other areas of the Atlantic provinces. From 1961 to 1971 the total population of Labrador (census division #10 Newfoundland) more than doubled from 13,534 to 28,165 people. While most of this growth was in the English mother-tongue portion of the population, the French mother-tongue population in Labrador expanded by 64% (from 965 in 1961 to 1,590 in 1971). The area within Labrador that experienced most of this population growth was West Labrador.

The population profiles of the two official language groups in West Labrador illustrated the attraction of the region to itinerant workers and to young families (fig. 25). The age cohorts between 20 and 40 were highly skewed for both groups but particularly for the English and "other mother-tongue" populations. Both official-language populations were represented by families in this frontier area, the English mother-tongue group slightly more so than the French mother-tongue population (fig. 25).

There was an interesting contrast within Labrador West regarding the strength of the language-of-the-home population to mother-tongue population. Within Labrador

City, where two-thirds of the minority population of the census subdivision were located, over 90% of the Francophone population actually used its language in the home. However, in the unorganized part of the census subdivision, which included the company town of Churchill Falls, and in Wabush, only 67% of the French mother-tongue population spoke the language in the home*. In the territory beyond Labrador City the French mother-tongue population was rather small (approximately 400) and a slight change in the size of the population would alter the ratio considerably. Furthermore, the male labour force in the rural, unorganized territory formed the major part of the total population in contrast to Labrador City where the population consisted of many families and the age-group pyramid had a more normal alignment. If one considered the existing demand for a male labour force beyond Wabush-Labrador City, the type of trailer or barrack accommodation this type of transient force usually accepted, and the projected lower demand for these workers once Churchill Falls was completed, it appeared that Labrador City/Wabush could continue to be the major centre for families. Although the language maintenance of the Francophone population seemed to be strong in 1971, the percentage of this home-language population was only 11.3% of the total population. Unless this percentage strengthens for the Francophones it will be increasingly difficult for them to use their language beyond the home and to obtain services, such as schooling, in French (table 31).

With the eventual completion of a highway to Goose Bay, the people of Churchill Falls will have a closer association with that centre. On the other hand, the population of Labrador City/Wabush were linked by railway to Sept-Iles.

^{*} Statistics Canada, special tabulation.

oupes sub-	TI	.92	LI	.35		
TABLEAU 31 Données linguistiques sur les groupes anglophone et francophone de la subdivision de recensement de Labrador-Ouest, Terre-Neuve, 1971	OL:EO LO:AS	10,955	OL:FO LO:FS	415		
131 linguistigu one et franc n de recense Terre-Neuve,	EHL EMT ALU ALU ALM	101.4	FHL FMT×100 FLU FLW	81.1		
TABLEAU Données angloph division Ouest,	% of/du total	87.7	% of/du total	8.7		
phone Census	EHL	11,960	FHL	1,180		
10	% of/du total	9.98	% of/du total	10.7	% of/du total	14.5
TABLE 31 Language-Related Data for Anglophone and Francophone Communities in Census Subdivision of West Labrador, Newfoundland, 1971	EMT	11,795	FMT FLM	1,455	OL:E&F LO:A&F	1,975
TABLE 31 Language-R and Franco Subdivisio	Total Pop. totale	13,640				

Source: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.



This, plus the difficulty encountered when travelling within West Labrador in this sparsely populated land, nullified any over-all impression of "community" within the census subdivision. As an administrative unit it was a manageable region for the collection of data but the area lacked social cohesiveness throughout.

West Labrador was typical of a frontier region. It had a high turn-over of population relative to communities within the ecumene of the provinces and an imbalance of single to married people in the region. The remoteness of the subdivision accounted, in part, for the high wages that were offered but this also contributed to the transient nature of the population. Because of this characteristic it was very risky to forecast the linguistic composition of the communities within West Labrador for 1981.

Digby/Yarmouth, Nova Scotia

In the intercensal period 1961 to 1971 the total population of the province of Nova Scotia increased by 7.0% whereas the change in the total population of the counties of Digby and Yarmouth, located at the western end of the province, was below this provincial figure (table 32). Digby County was considered to have experienced no growth in this period as its population increased by less than 1%; the major urban municipality within the county, the town of Digby, expanded by about 60 people in the ten-year period. The county of Yarmouth managed better than its neighbour to the north but at 5.6%, the increase again was below the provincial figure. Within the county the major urban municipality, the town of Yarmouth, actually experienced a population decline from 8,636 to 8,515 in 1971 and this was not attributable to a municipal boundary adjustment. It was possible that this decline was associated

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with the growing significance of the rural non-farm element to the total population. That is, more people were taking up residence in less expensive areas outside the municipal limits of urban centres such as Yarmouth (fig. 27).

For the entire county, the change in that portion of the population who were of French mother tongue was slightly ahead of that for the whole province. Within Nova Scotia there was a decline in the French mother-tongue population between 1961 and 1971 of 0.6 per cent (39,568 to 39,335 in 1971) but in Yarmouth County there was an increase of 1.5 per cent (7,671 to 7,785 in 1971). Some encouragement could have been derived from this minority increase in Yarmouth except that it had not kept pace with the growth rate of the total population. Consequently the percentage of the French mother-tongue population in the county declined slightly in the intercensal period from 32.8% in 1961 to 31.5% in 1971.

This minority population was not evenly distributed throughout the two counties (fig. 27). In Digby County the majority of the French mother-tongue population (92.6%) was in the municipality of Clare and was spread along the coast in the region traditionally known as "La Côte Française". They constituted 79.7% of the total population in this municipality and their strength in numbers was reflected in the maintenance of their language. Of the French mother-tongue population in Clare 93.9% of the people were using their language in the home*. However, among the small proportion of this Francophone population of Digby County who lived beyond Clare (570 people), only 47.4% were using their mother tongue in the home. Thus more than half the people of this minority population beyond Clare appeared to have stopped using their mother tongue*. In the town of Digby where the French mother-

^{*} Statistics Canada, special tabulation.

TABLE 32

LANGUAGE-RELATED DATA FOR ENGLISH AND FRENCH POPULATIONS, DIGBY AND YARMOUTH CENSUS DIVISIONS, AND COMPONENTS, NOVA SCOTIA, 1971

TABLEAU 32

DONNEES LINGUISTIQUES SUR LES GROUPES ANGLOPHONE ET FRANCOPHONE, DIVISIONS DE RECENSEMENT DE DIGBY ET DE YARMOUTH ET LEURS COMPOSANTES, NOUVELLE-ECOSSE, 1971

% of/du TOTAL	36.1	72.5	7.2	2	32.1	6.99	11.9	15.6
OL:E&F &	7.355		650	190	7.935	5,695	910	1,330
LI	.15	.155	.07	n n	.11	111	.13	.04
OL:FO LO:FS	1,110	1,090	15	ľΩ	71	640	55	15
LI	.91	.71	.95	.945	80	.77	.93	68 .
OL:EO LO:AS	11,885	1,385	8,305	2,150	16,020	2,180	6,680	7,150
FHL FMT FLU FLW FLM	94.5	98°3.	47.7	46.4	83.4	95.1	55.2	38.0
EHL EMT ALU ALU ALM	104.1	107.9	103.2	104.0	108.3	112.0	106.0	109.2
% of/du TOTAL	35.9	78.3	2.3	2.75	26.3	9.99	5.56	4.6
FRL	7,305	7,035	205	65	6,495	5,675	425	395
% of/du TOTAL	63.9	21.6	97.5	96.2	73.4	33,35	94.4	94.65
EHL	38.0 13,005	1,940	8,740	2,275	18,125	2,840	7,210	8,060
% of/du TOTAL	38.0	79.7	4.8	5.9	31.5	70.1	10.1	12.2
FMT	7,730	20.1 7,155	430	140	7,785	5,970	770	1,040
% of/du TOTAL	61.4	20.1	94.5	92.4	67.8	29.8	1.68	86.7
EMT	12,490	1,805	8,470	2,185	16,730	2,535	6,805	7,380
TOTAL	20,350	086'8	8,965	2,365	24,685	8,515	7,640	8,515
	Digby	Clare (mun.)	Digby (mun.)	Digby (town/ville) 2,365	Yarmouth	Argyle (mun.)	Yarmouth (mun.)	Yarmouth (town/

Nota: Components may not conform to totals because of rounding. Nota: Le total des composantes n'est peut-être pas conforme à cause de l'arrondissement aléatoire.

Mun.: Rural municipalities in Nova Scotia. Municipalités rurales de la Nouvelle-Ecosse.

Source: Statistics Canada/Statistique Canada, Special tabulation/Tabulation spéciale



tongue population was only 5.9% of the total population, the percentage of the minority who were using French in the home was also low at 46.4 per cent. For the Anglophone population in this small service centre the latter calculation was 104 per cent. The magnitude of the majority language was again illustrated in the language intensity indices for English and French for the entire county, .91 and .15 respectively (table 32).

The pattern of population distribution was similar in Yarmouth County. Of the total French mother-tongue population of the county, 76.7% were in the municipality of Argyle and, for this population, the retention of the language was apparently strong; 91.8% were using their mother tongue as the language of the home*. However, beyond Argyle the French mother-tongue population, while larger than the similar group in Digby County (2,859), had an even weaker language maintenance; 41.2% used the mother tongue in the home (table 32).

The majority of this Francophone population outside Argyle lived in the town of Yarmouth and here the language maintenance was so tenuous that one was tempted to forecast its demise unless an unforeseen resurgence occurred. In the town only 38% of the population of French mother tongue were using French in the home. Since the language intensity index for the English and French for the entire county was .88 and .11 respectively, it seemed reasonable to postulate that for the latter, in the town of Yarmouth, the language intensity index would be very close to zero. The strength of attraction of the majority language in the town of Yarmouth was expressed through the calculation of English home-language population as a percentage of English mother-tongue population. At 109.2% it is indicative of some assimilation of

^{*} Statistics Canada, special tabulation.

the minority population. Since the people of "other" mother tongue were fewer than 100 in the town, most of the assimilation was from French to English.

Hence, of the French mother-tongue population beyond the concentrations of Clare and Argyle, those who managed to retain their language were in the rural areas beyond the towns of Digby and Yarmouth. But in these rural areas, those who were continuing to use their mother tongue in the home were in such a minority to the total population (3%) that it was difficult to forecast a continuation in spite of whatever sustenance they could draw from contact with the strongly concentrated French mother-tongue population in Clare and Argyle.

It was stated earlier that within the latter municipalities, the French mother-tongue population constituted 79.7% and 70.1% of the total population. This strong proportion plus the geographical location away from the growth centres of the province must account, in a large part, for the language maintenance. In a rural milieu with a high Francophone concentration, it was possible not only to use the mother tongue in the home, but to use it in local community contacts whether social or business. However, a major feature that was lacking in this region was a large urban service centre that constituted a functional part of the French language community. To obtain a range of wholesaleretail services, the people of Argyle and the majority within Clare were required to travel to the town of Yarmouth, a community classified as the major "wholesale-retail" centre for the western portion of the province (fig. 26). The town of Digby offered complete shopping facilities but lacked the major trade centre rating of Yarmouth. From the language maintenance tabulations (FHL/FMT x 100) these centres were classified as assimilating communities. Hence while the

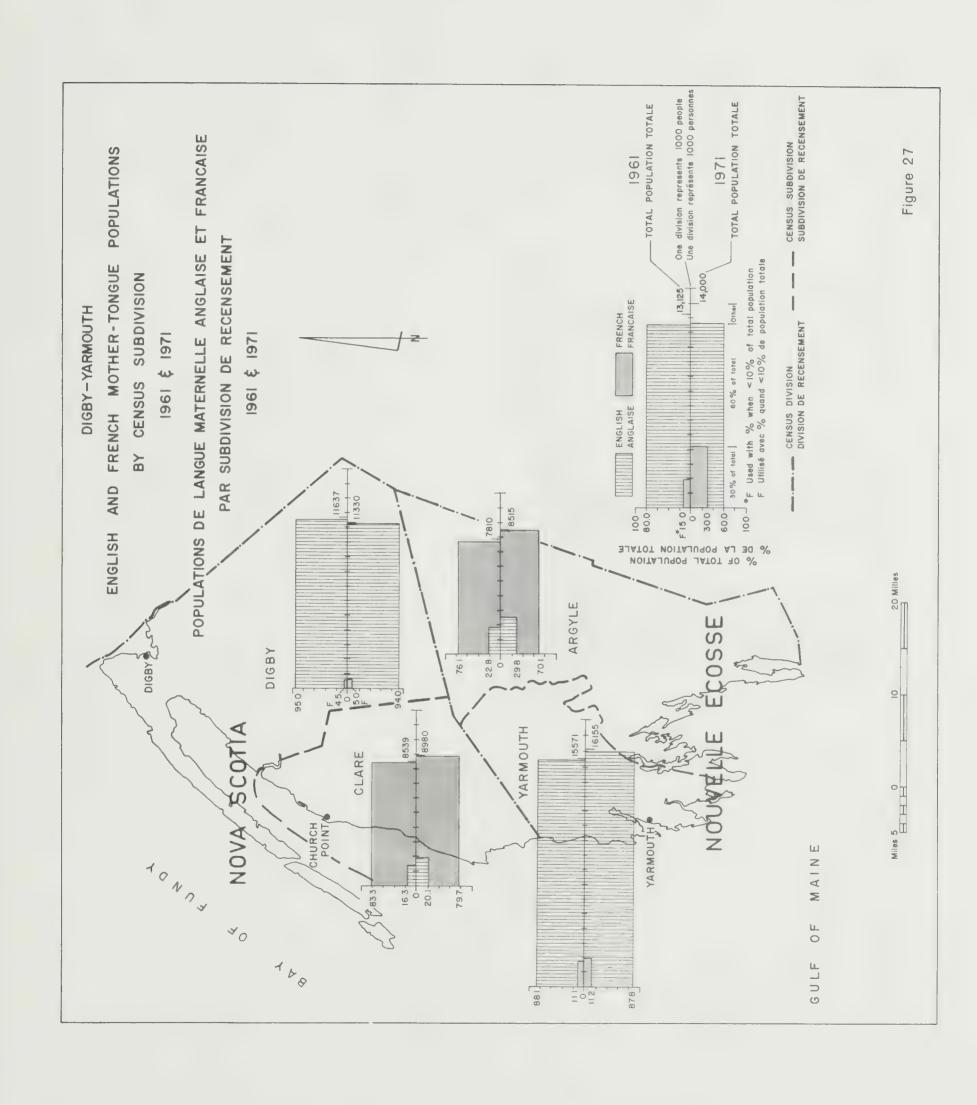


French mother-tongue population appeared to have a slight impact of language attraction upon its English mother-tongue neighbours within Clare and Argyle, this did not extend into the two major urban centres of the region. In other words, the decay factor for language maintenance was quite marked beyond the two major rural municipalities of Franco-phone concentration.

The reliability of the figures for bilingual population for Digby and Yarmouth was difficult to calculate in the southwestern part of Nova Scotia. Beyond Clare and Argyle, this population was probably over-represented since the strength of English and the indication of minority assimilation would suggest that many who recorded mother tongue as French and language of the home as English, in fact would be unilingual English. Furthermore, the low language intensity index for the Francophone population in each county, in spite of a high concentration of the French mother-tongue population within Argyle and Clare, indicated that these people have found it necessary to learn the other official language. This would be essential for the periodic visits to the towns of Yarmouth and Digby. For the small percentage of the population of English mother tongue in Argyle and Clare, 29.8 and 20.1 respectively, the response to the official language question as bilingual was considered to be accurate because of the regular opportunity for contact with people who spoke French. In Yarmouth County this could explain the relatively low language intensity index (.88) for the Anglophone population. On the other hand, it may also have indicated that, in part, editing procedures underrepresented the unilingual English population in the county. This dilemma reflected the reluctance to utilize the ratio of the bilingual population to total population in the language islands throughout the Atlantic region and in other parts of Canada, beyond the bilingual and the unilingual-French zones.

The population profile for the Digby/Yarmouth area revealed a similarity in the processes that were operative in the other minority communities described above. The fact that the birth rate had declined reflected the loss of population in the major wage-earner category. The older people among this population (Anglophone and Francophone) were likely to remain in the area and it appeared that they would constitute an increasing proportion of the total while the teen-age cohorts would follow the trend to leave and seek employment elsewhere (fig. 28).

At the outset, the strong ratio of language-of-thehome population to mother-tongue population and the ratio of the latter to the total population were indicative of the viability of this cultural community. However, there were significant trends within this culture group that dampened enthusiasm. If one considered the age structure of this population, the growth performances of the two major towns, and the negative to zero rate of change of the French mother-tongue population in both counties since 1941, the minority cultural region could be considered languid in 1971 (fig. 29). It appeared as if these counties were subject to the processes that were operative throughout the Atlantic region (see below). Processes that propelled many entrants into the labour force toward those growth centres that were beyond the local counties and even beyond the province. This migration pattern was beginning to produce a decline in the 0 to 4 age cohort; a feature that was found to be characteristic of other French mother-tongue communities throughout the Atlantic region.





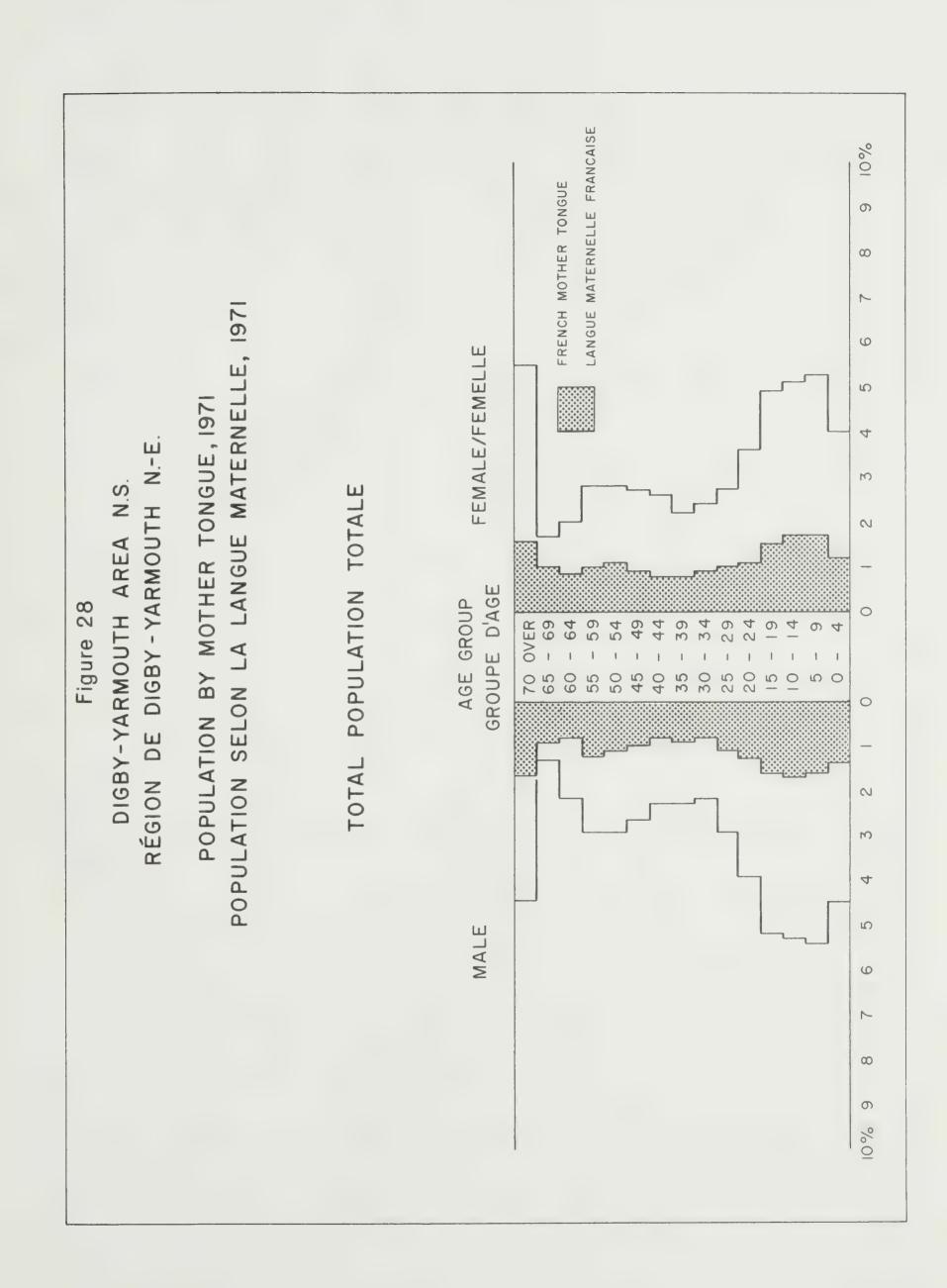
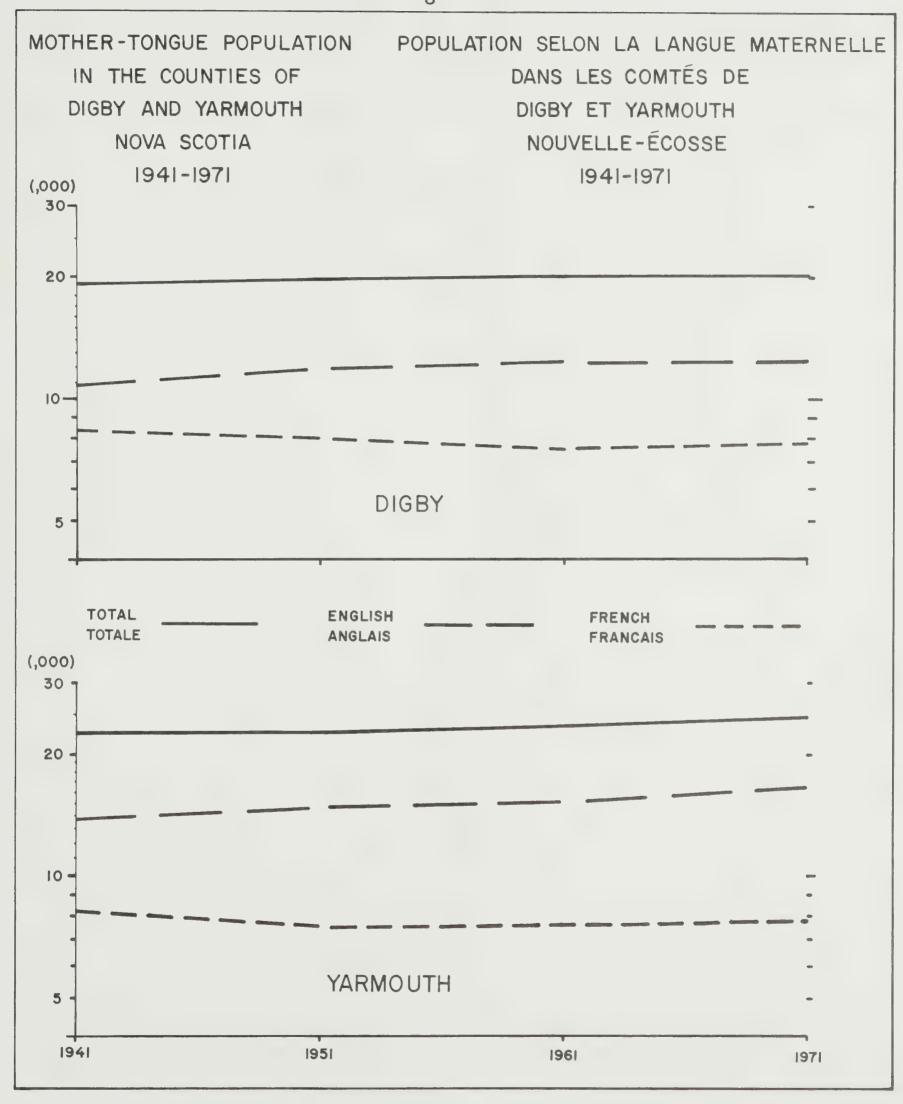




Figure 29





Antigonish/Inverness/Richmond, Nova Scotia

Within the three-county area of northeastern Nova Scotia, the distribution of the French mother-tongue population had a pattern that was similar to that found in other parts of the Atlantic region (fig. 30). There were three concentrations of the minority group each separated from the others by large areas that were dominated by English mother-tongue populations. Furthermore, contact among the Francophone groups was considered to be difficult. The fragmented nature of the Cape Breton area restricted travel to coastal routes and thereby limited the possibility of future reductions in time/distance. It was assumed that the opportunities for interaction among the Francophones of the three counties were minimal, perhaps less than for any part of the Atlantic region discussed so far.

In the county of Antigonish the French mother-tongue population was only 1,275 and, of this number 1,020 (80%) lived in the census subdivision of Pomquet-Tracadie. Not only had this group been separated by distance from the other minority population in Cape Breton but prior to the construction of the causeway (1955) across the Strait of Canso, that body of water was a formidable barrier that added to the time/distance factor. Furthermore, the travel preference of these people had traditionally been away from Cape Breton for they lived within the regional trade area of the town of Antigonish, a town that had an English mothertongue population that was 95% of the total and a centre in which 98% of the people used English in the home (fig. 26). Classified as a "complete shopping" centre, rather than as a "secondary wholesale-retail" centre as in Yarmouth,

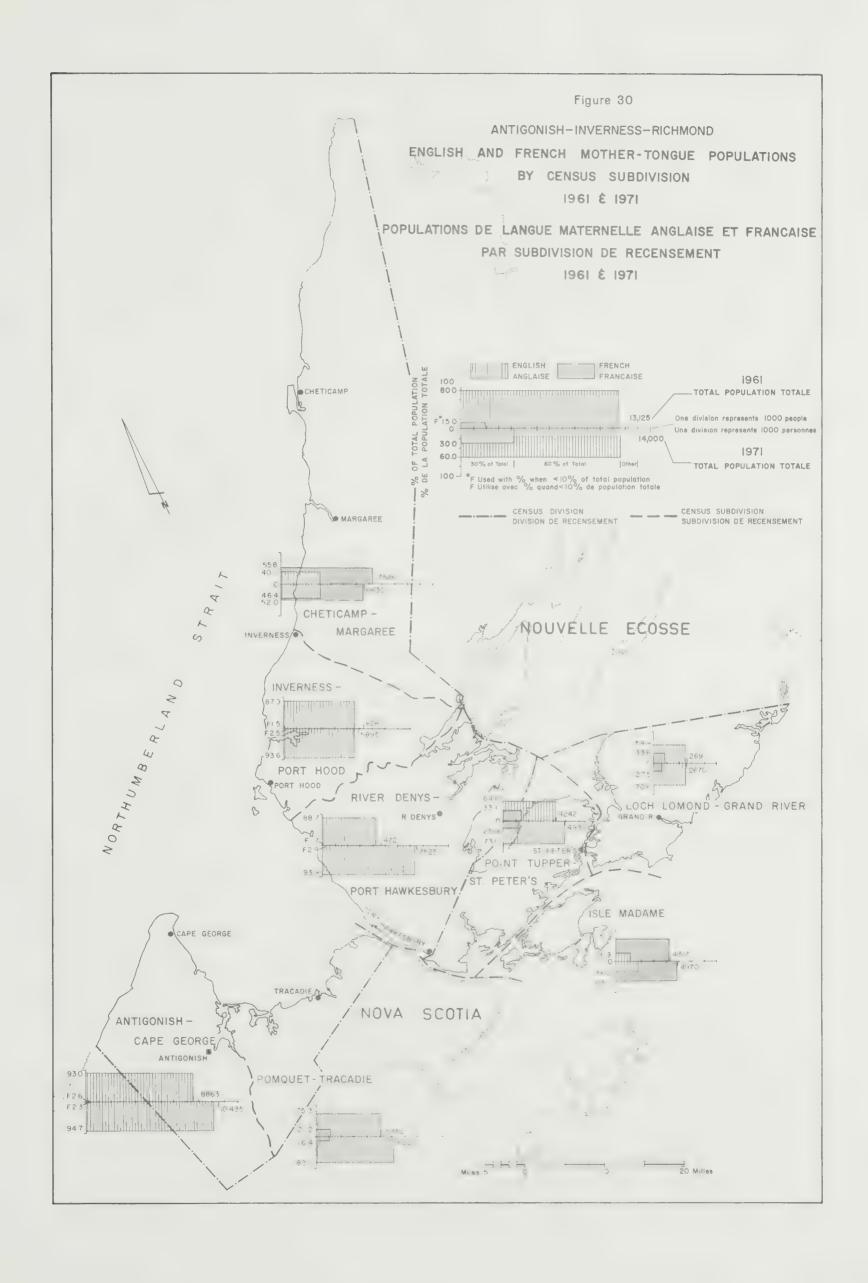
Antigonish had been successful in maintaining its trade area to the Strait of Canso⁹. It was assumed, however, that some inroads would be made into this trade area by Port Hawkesbury (English mother tongue 92.6% in 1971) if that community, classified as a "partial shopping" centre by the Atlantic Development Board in 1969, experienced the economic growth and development that had been forecast. The Francophone population could, therefore, become polarized between two Anglophone communities that, in time, would offer competing services to the local population.

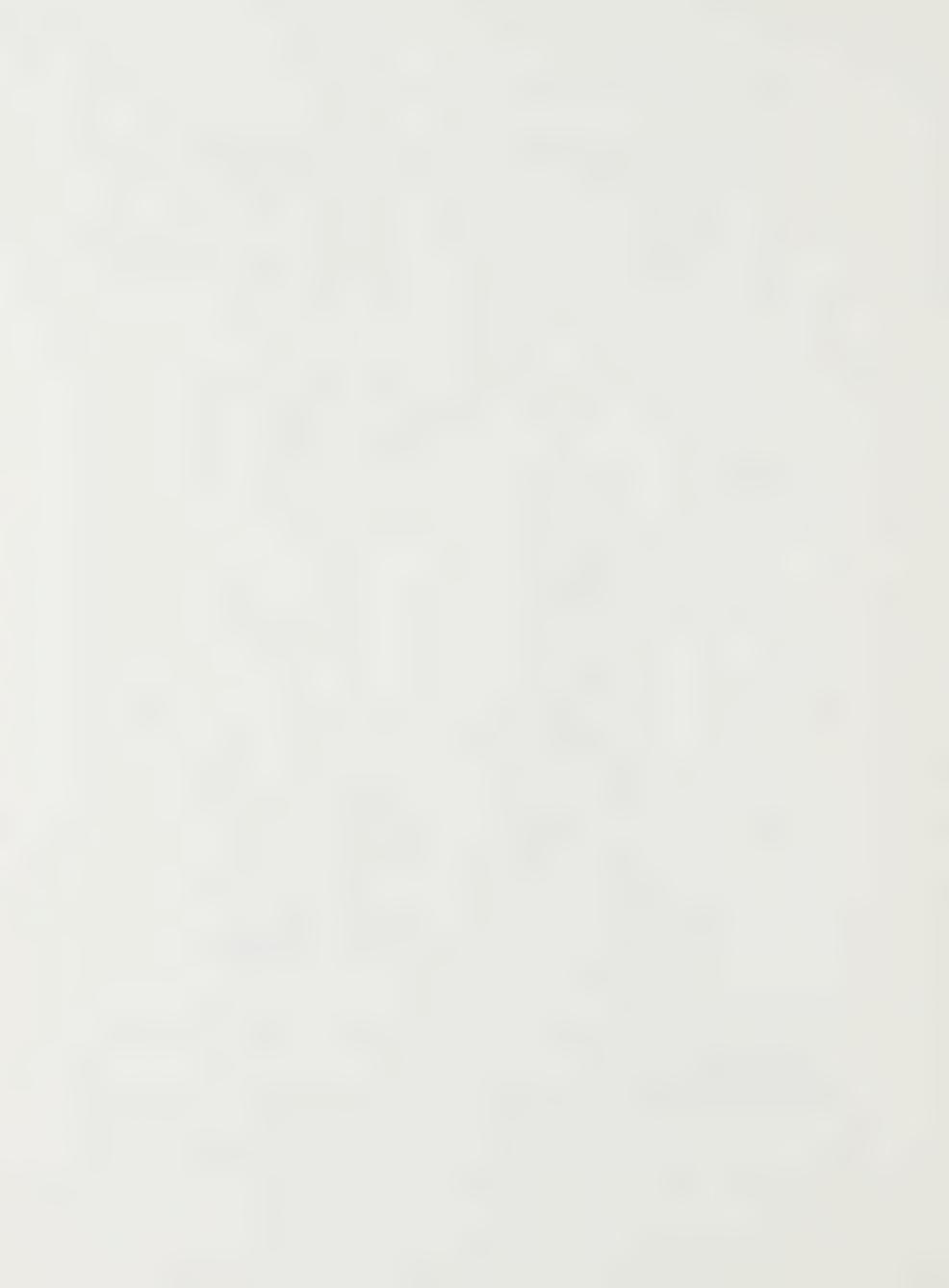
This form of cultural isolation of the Francophones of Antigonish probably contributed to the low level of language maintenance among the French mother-tongue population in Pomquet-Tracadie. Of the 1,020 people of French mother tongue in Pomquet-Tracadie, only 65.2% were using their mother tongue in the home. Beyond this subdivision there were approximately 250 people of French mother tongue who resided in the town of Antigonish (150) or in the subdivision of Antigonish-Cape George (100). Of this population, only 40% used their mother tongue as the language of the home. As a mother-tongue population, they comprised only 2.4% of the total population outside the subdivision of Pomquet-Tracadie and those who used the language, according to the one-third census sample*, formed about 1% of the total population. These proportions were so small that they had to be considered as approximations only. It was the distribution patterns that were of greater significance.

The pattern of the Francophone population distribution that was found in Yarmouth and in Digby was repeated, in

^{9.} Atlantic Development Board, Background Study #7, op. cit.

^{*} See Chapter VI.





weaker fashion, for the French mother-tongue population within Antigonish. The Francophones were concentrated in one census subdivision and beyond this area the decay factor for their ratio to total population and the retention of the mother tongue, measured through language usage in the home, was very pronounced.

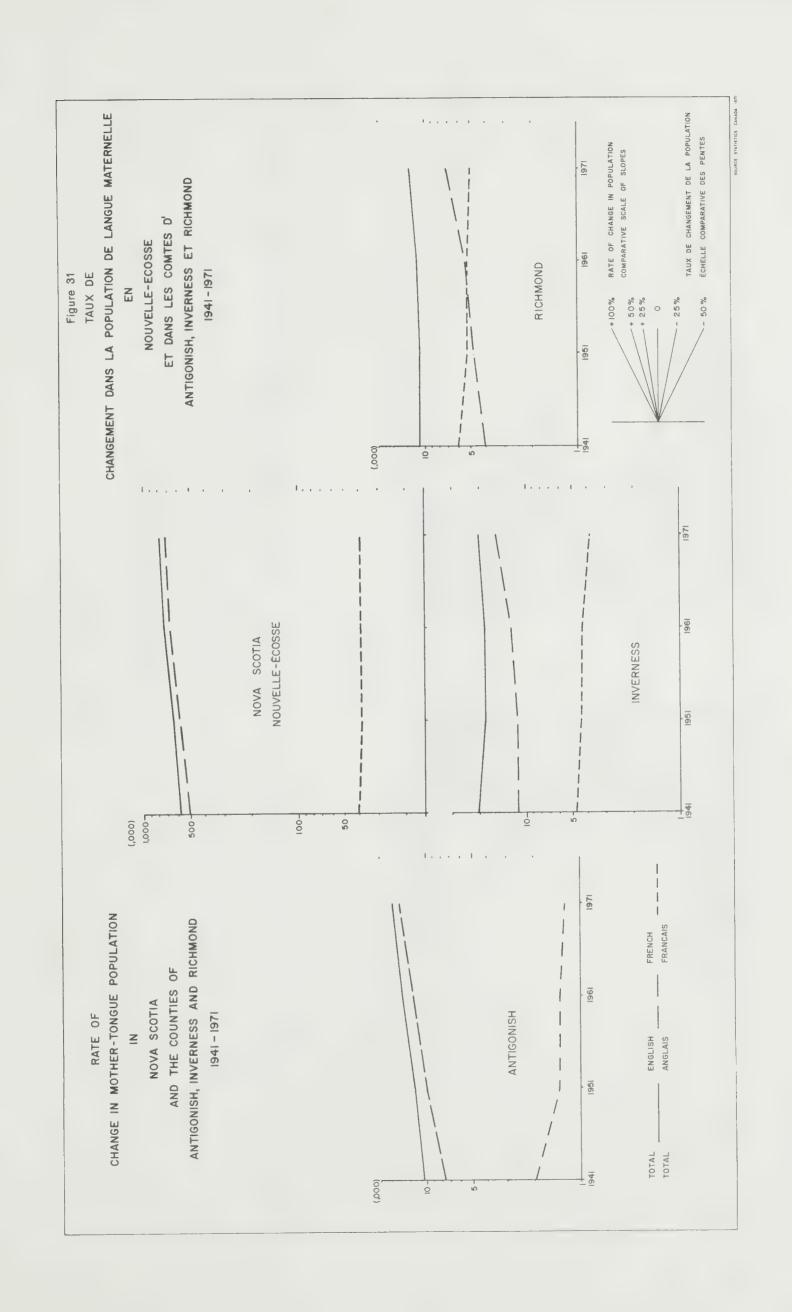
Added to the problem of relatively low ratios for the language-of-the-home to mother-tongue population, the minority had been steadily declining in Antigonish County since 1941. During the war years the rate of decline was very rapid (30%) but since 1951 the rate, although negative, had been much more gradual (fig. 31). Between 1961 and 1971 the French mother-tongue population of the county declined by 6.6 per cent. This was in marked contrast to a total population growth for Antigonish of 17.1%, a growth rate that had been fairly constant since 1951 (table 23).

In Inverness County, 19% of the French mother-tongue population were located in the census subdivision of Cheticamp-Margaree where it comprised 52% of the total population (fig. 30). Again one encountered the significance of peripheral isolation, a larger minority population than in Antigonish (3,455), and an increased ratio to the total population. All these contributed to stronger language maintenance. In this northwest corner of the province, 94.8% of the French mother-tonque population were still using the language that they first learned as a child. Because they did not live within easy commuting distance of Sydney, the "primary, wholesale-retail" centre of the island, it was probable that they visited this city only infrequently. Within driving distance there were two "full-convenience" centres, Inverness and Cheticamp. Both are unincorporated, however, and did not have the same attraction or assimilative impact as centres such as Yarmouth or Antigonish.

Though the rate of growth of the total population in the county of Inverness since 1961 was greater than that for the province (8.9% and 7.0% respectively), this was largely the result of the ten-year increase in population along the Strait of Canso, particularly in the vicinity of the town of Port Hawkesbury — from 1,346 to 3,370 in 1971 (table 23). For the French mother-tongue population of the county, however, a gradual decline occurred from 1941 to 1961. In the decade 1961 to 1971 this rate of change escalated to -12.7% (table 23). Only a small portion of this decline was attributable to the growth and development along the Strait of Canso for the French mother-tongue population here expanded by only 140 in the ten-year period. It must be assumed that while some were assimilated, others have left the county altogether*.

Richmond County, highly indented by the sea, was a municipality of islands and peninsulas. Here, from west to east, the French mother-tongue population constituted 25.9%, 63.3%, and 27.5% of the total population of the census subdivisions of Point Tupper-St. Peter's, Isle Madame, and Loch Lomond-Grand River (fig. 30). The latter subdivision had the smallest absolute number (F.M.T. = 735), the French language-of-the-home population was only 64.0% of the French mother-tongue population, and it was the closest subdivision of the county to the "primary, wholesale-retail" centre of Sydney. This city was within an hour's drive of most of the population of Loch Lomond-Grand River and this influence of proximity appeared in the changes in the composition of the population within Loch Lomond-Grand River. In the intercensal period from 1961 to 1971 the percentage increase in

^{*} In the intercensal period 1961-1971, the French mothertongue population in neighbouring Cape Breton County and in the city of Sydney declined from 2,674 to 2,305 and from 836 to 775 respectively.



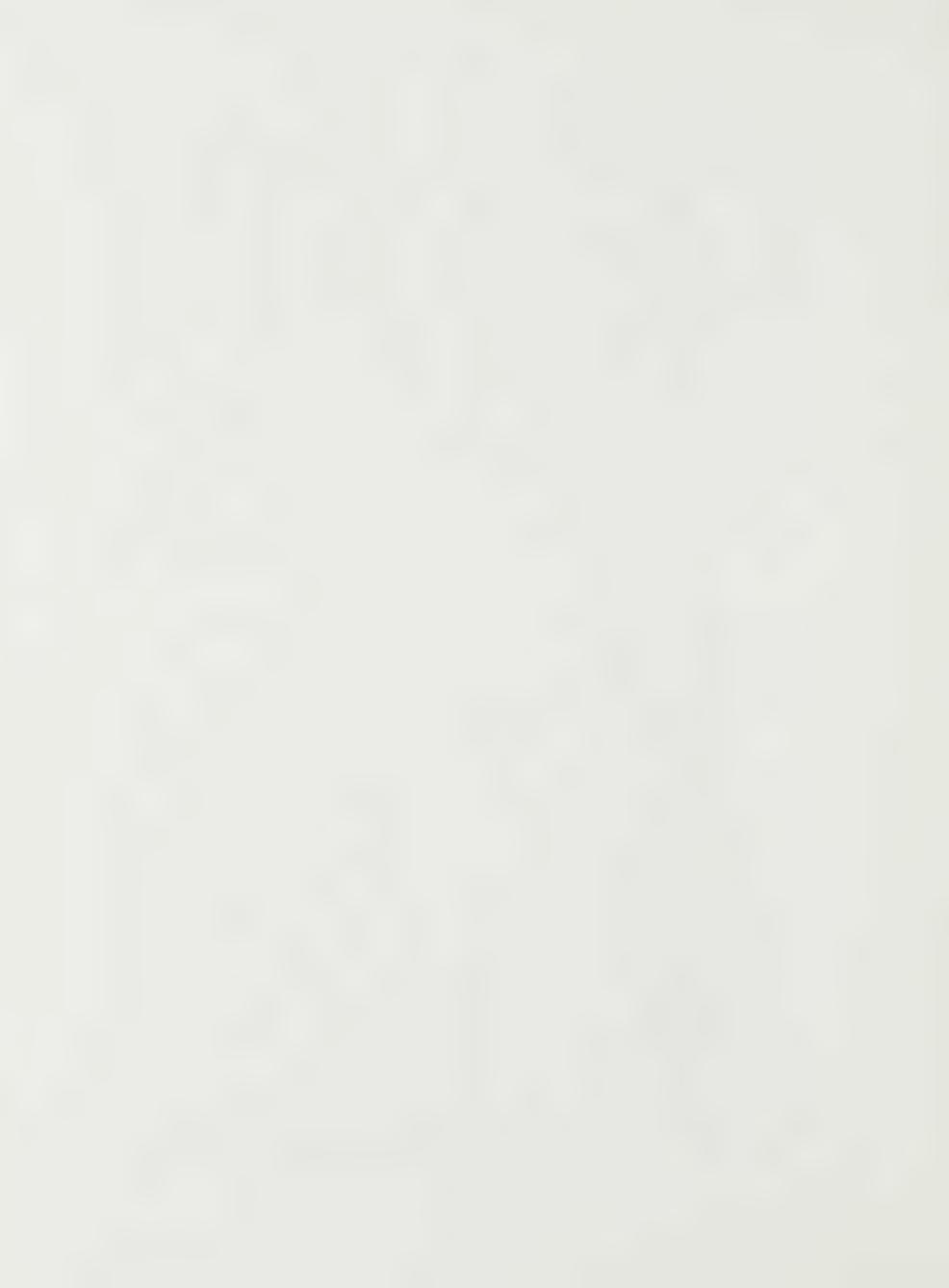


Figure 32
Inverness County-Comté
Nova Scotia/Nouvelle-Ecosse

Groupes d'Age de la Population Ayant la Langue Maternelle Française, 1971 Age Composition of French Mother-Tongue Population, 1971

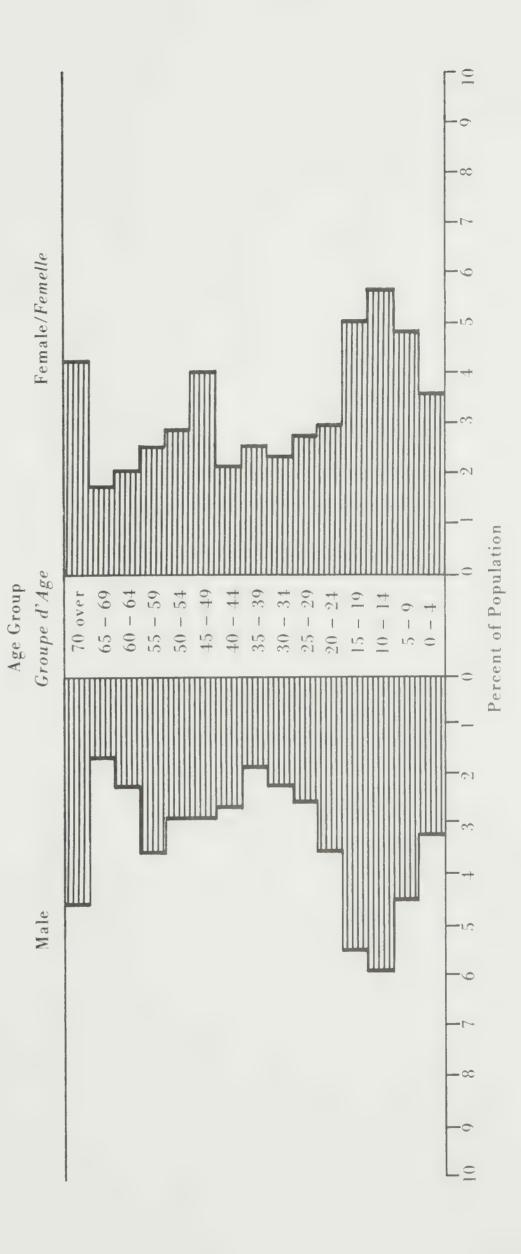
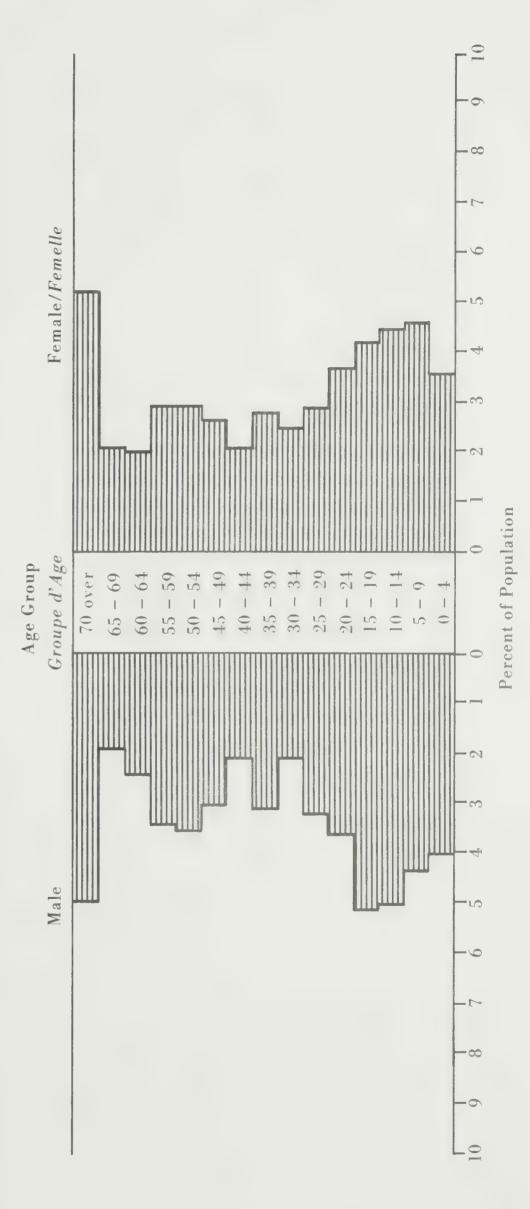




Figure 33

Richmond County-Comté Nova Scotia/Nouvelle-Ecosse

Groupes d'Age de la Population Ayant la Langue Maternelle Française, 1971 Age Composition of French Mother Tongue Population, 1971





to mother-tongue population (table 33). The language intensity index for these subdivisions was very close to zero and in some, the values were so low that accuracy in the lower range became difficult to maintain. In Cheticamp-Margaree and in Isle Madame, on the other hand, where the French mother-tongue population was greater than half the total population, the percentages that reflected the use of the minority language in the home were high at 97.1% and 88.7%, respectively. And yet within each of these two subdivisions the language intensity index for the Francophones was rather low at .34 and .11 respectively. This was particularly so for the latter, Isle Madame, in which the concentration of the people of French mother tongue to total population was the highest of the subdivisions in the three-county area.

The peripheral isolation mentioned above was more apparent than real. Geographical isolation had not been a factor in preventing inroads of the English language. The language intensity index of the Anglophone population in both Antigonish and Inverness counties reflected the high proportion and the strong concentration of this group, particularly in the southern census subdivisions (fig. 30). It must be remembered that the major service centres were within the subdivisions that were strongly Anglophone, both in the ratio of English mother-tongue population to total population and in indices of language intensity which were close to unity (table 34).

Hence, the pattern was maintained that throughout the language islands of the Atlantic region the major service centres were beyond the French mother-tongue communities, they were strongly Anglicized, and the members of the minority community who used these urban communities for wholesale, retail, or institutional services were required to

function within an English-speaking milieu. For those people of the minority group who moved to these towns and cities to obtain employment, chances of resisting assimilation were limited. The opportunities for language usage beyond the home and the local neighbourhood for the Franco-phones of Antigonish, Inverness and Richmond were very restricted. Add to this the low indices of language intensity among the entire Francophone community and the vise seemed to close further.

The Milieu

What were the processes that were operative within the Atlantic region that helped to counteract this vise-like situation for the Francophone language islands? Unfortunately, within the region discussed so far the processes associated with population movement appeared to be operating against language maintenance for the minority Francophone communities.

The population of the Atlantic region was less overbalanced in its distribution rural to urban than in the rest of Canada. Throughout the country, 23.9% of the population were located in rural areas whereas the percentage for the Atlantic region was 43% according to the census of 1971. While 75% of Canada's population were urbanites, only 56% of the people of the Atlantic provinces were residing in urban areas.

There had been a decline in the rural population of the Atlantic provinces but the rate of decline had been less in the region than in Canada as a whole. At the same time, research into the patterns of population movements

TABLE 33

LANGUAGE-RELATED DATA FOR ANGLOPHONE AND FRANCOPHONE COMMUNITIES FOR SELECTED CENSUS SUBDIVISIONS IN ANTIGONISH, INVERNESS AND RICHMOND COUNTIES, NOVA SCOTIA, 1971

TABLEAU 33

DONNEES LINGUISTIQUES SUR LES GROUPES ANGLOPHONE ET FRANCOPHONE, SUBDIVISIONS DE RECENSEMENT CHOISIES, DANS LES COMTES D'ANTIGONISH, INVERNESS ET RICHMOND, NOUVELLE-ECOSSE, 1971

% of/du TOTAL	10.9	20.1	15.5	38 .8	42.0	61.5	32.2	29.5
OL:E&F &	1,825	1,250	3,160	2,570	5,355	3,055	860	1,440
II	.16	.15	.33	.34	.11	.11	.12	60°
OL:FO LO:FS	130	, 100	1,165	1,125	435	300	55	08
IL	.94	00	.97	06.	. 82	. 74	.81	. 8 4
OL:EO LO:AS	14,855	4,900	15,990	2,940	006'9	1,605	1,765	3,405
$\frac{\text{EHL}}{\text{EMT}} \times 100 \frac{\text{FHL}}{\text{FMT}} \times 100$ $\frac{\text{ALU}}{\text{ALM}} \times 100 \frac{\text{FLU}}{\text{FLM}} \times 100$	62.4	65.7	92.0	97.1	80.0	88.7	63.3	67.8
	105.1	108.8	104.6	105.9	115.9	120.0	116.2	112.2
of/du TOTAL	4.7	10.7	17.3	50.5	32.4	56.1	17.4	17.5
FHL %	795	029	3,515	3,345	4,120	2,790	465	865
% of/du TOTAL	93.9	89.3	9.08	49.1	65.8	43.5	82.0	82.0
EHL	7.6 15,795	5,555	18.7 16,415	3,255	8,385	2,160	2,190	4,040
% of/du TOTAL	7.6	16.4	18.7	52.0	40.5	63.3	27.5	29.9
FMT %	1,275	1,020	3,820	3,445	5,155	3,145	735	1,275
% of/du TOTAL	89.4	82.1	77.0	46.4	57.2	36.2	70.6	73.0
EMT	15,030	5,105	15,690	3,075	7,285	1,800	1,885	3,600
TOTAL	16,815 15,030	6,220	20,375 15,690	6,630	12,735	4,970	2,670	4,930
	Antigonish County Comté	Pomquet-Tracadie	Inverness County	Cheticamp-Margaree	Richmond County Comté	Isle Madame	Loch Lomond- Grand River	Point Tupper- St. Peter's

Source: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.

		of/du total	7	0	7.2
	age	% of	7	7	m
	sur la langue d'usage e, centres urbains kesbury et Sydney,	OL:E&F LO:A&F	425	235	3,440
	lang tres y et	LIL	ממ	na	65 .10
	uistiques sur la lang officielle, centres , Port Hawkesbury et sse, 1971	OL:FO LO:FS	10	15	6.5
	stiques fficiell Port Have, 1971	LI	.94	. 95	80
	linguistiques ngue officiel nish, Port Har- Ecosse, 1971	OL:EO LO:AS	5,045	3,120	0.7 87,630
TABLEAU 34	Données lingui et la langue o d'Antigonish, Nouvelle-Ecoss	% of/du total	1.0	H.	0.7
TZ	N N N	FHL	55	20	089
	guage Data h, Port otia,	% of/du total	97.6	97.5	£ . 8 6
	ial Lantigonis. Nova Sc	EHL	5,360	3,285	89,700
	d Offics of Any	Total pop. totale	5,490	3,370	91,220
TABLE 34	Home Language and Official Language D for Urban Centres of Antigonish, Port Hawkesbury and Sydney, Nova Scotia, 1971		Antigonish	Port Hawkesbury	Sydney (census agglomeration/agglomération de recensement)

Source: Statistics Canada, special tabulation. Statistique Canada, tabulation spéciale.

disclosed that the Atlantic provinces had not been "urbanizing" as rapidly as other parts of Canada 11. Part of the
explanation for this was that there was still a substantial
migration out of the Atlantic provinces. The study conducted by the Atlantic Development Board in 1969 disclosed
that between 1951 and 1966 there was a net movement out of
the region of approximately 200,000 people, about 12% of
the 1951 population.

Another factor in the relatively slow urban growth in the Atlantic provinces was the alteration in the components of the rural population 12. It was essential to remember that the terms urban and rural were descriptions of location and not of occupation. Hence, the latter consisted of rural farm residents and rural non-farm residents. The difference was based upon a classification of total sales from a farm per annum. There had been a more pronounced drop in the farm population of the three Maritime provinces (Nova Scotia, New Brunswick and Prince Edward Island) than in Canada as a whole. On the other hand, the percentage of the population classified as rural non-farm had actually increased in Prince Edward Island and Nova Scotia since 1961, 34.6% to 42.8% and 37.9% to 40% respectively. For the entire country, the percentage of the population who were so classified was 17.3 whereas for the Atlantic region it was 40.3.

The Atlantic Development Board had presented this "over-representation" of the rural non-farm sector of the population as evidence of the relative lack of attraction

^{11.} Atlantic Development Board, Study #7, op. cit.

^{12.} Parks, A.C. Recent Population Trends: Atlantic Provinces, Atlantic Provinces Economic Council, 1968. See also, McDonald, D.J., "Population Migration and Economic Development in the Atlantic Provinces", Atlantic Provinces Economic Council, Research Paper #6, 1968.

of the larger urban centres within the Atlantic region to that portion of the labour force that had changed occupations from the primary industries to urban and quasi-urban occupations. They chose to commute from rural homes. There was also a component that had not changed occupation but had migrated to rural areas in search of cheap housing.

For those (rural-farm) who remained in agriculture in the Atlantic provinces the challenges were formidable. Distance and barriers to large urban markets beyond the region, a restrictive climatic regime in agricultural areas of valley and coastal predominance, and attitudes that were not readily receptive to changing circumstances and new technological innovation were but part of the explanation for the long-term decline that has characterized agriculture during the 1950's and 1960's 13. The average farm income had been lower than in the rest of Canada and this, plus the pull of off-farm jobs and the high cost of modernizing, had contributed to the abandonment of small farm operations and a shift to larger farm units.

The population involved in the farming way of life in the Atlantic provinces is suffering steady fragmentation and disintegration with little evidence that the process has as yet exhausted itself or is approaching a new equilibrium.14

These were only some of the processes within the Atlantic provinces, processes to which the French mother-tongue population was at least as susceptible as other groups.

^{13.} Black, W.A. and Maxwell, J.W. "Resource Utilization: Change and Adaptation" in Macpherson, A.G. (ed.) The Atlantic Provinces, University of Toronto Press, Toronto, 1972.

^{14.} Macpherson, A.G. (ed.) The Atlantic Provinces, University of Toronto Press, Toronto, 1972, p. 54.

TABLE 35 bution, Atlantic Provinces

TABLEAU 35 Urban-Rural Population Distri- Répartition démographique rurale-

bution, Atlantic Provinces urbaine, provinces Atlantiques and Canada, 1961 and 1971 et Canada, 1961 et 1971

		Urban ge urbain 1971	Per Cen Pourcent 1961	age rural
Newfoundland Terre-Neuve	50.7	57.0	49.3	42.7
Prince Edward Island Ile-du-Prince-Edouard	32.4	38.3	67.6	61.7
Nova Scotia Nouvelle-Ecosse	54.3	56.7	45.7	43.3
New Brunswick Nouveau-Brunswick	46.5	56.9	53.5	43.1
Atlantic Provinces Provinces Atlantiques	49.8	55.9	50.2	44.1
Canada	69.6	76.1	30.4	23.9

Statistics Canada, 1961 and 1971. Source: Statistique Canada, 1961 et 1971.

TABLE 36			T	TABLEAU 36	LO.				
Urban, Rural-Farm, Rural Non-Far Populations, Atlantic Provinces Canada, 1961, 1966 and 1971	.l Non-Farm rovinces a 1971	rm and	Canada	Population urbaine, rurale agricole non agricole, provinces Atlantiques Canada, 1961, 1966	n urba	ine, rur covinces 366	ale agr Atlant		, rurale et
	U Ur 1961	Urban Urbaine 1 1966	1971	Rural Rurale 1961	1 Fa agr 1966	rm icole 1971	Rural Rurale 1961	Non-Farm non agri 1966 19	Farm agricole 1971
	Percentage	age of	total	population	1	Pourcentage	ge de la		population totale
Newfoundland Terre-Neuve	50.7	54.1	57.0	2.0	1.7	6.0	47.3	44.2	41.9
Prince Edward Island Ile-du-Prince-Edouard	32.4	36.6		33.0	28.4	18.9	34.6	35.0	42.8
Nova Scotia Nouvelle-Ecosse	54.3	58.0	56.7	7.7	0.9	w	37.9	36.0	40.1
New Brunswick Nouveau-Brunswick	46.5	50.6	56.9	10.4	8.4	4.0	43.1	41.0	39.1
Atlantic provinces Provinces atlantiques	49.8	53.5	55.9	8	6.9	ω	41.7	39.6	40.3
Canada	9.69	73.6	76.1	11.4	9.6	9.9	19.0	16.9	17.3

Source: Census of Canada, 1961, 1966, 1971. Recensement du Canada, 1961, 1966, 1971.

Predominantly rural, the Francophones had sustained their language and their culture in large part because of the minimal contacts with urban and other ethnic populations in the past and because of a tradition of kin associations and ethnic group cooperation. The traditional patterns appeared to be changing. The age cohorts of this Francophone population who chose to migrate beyond the region or to urban agglomerations were those who, through their wage-earning capacities, could have contributed most to the services required by the very young and by the older groups. Their absence in the community was manifest in the drop of the 0 to 4 age cohort, and, hence, a decline in school-age population which sustained needs and demands for French language education.

As more of this rural ethnic population joined the commuter to the urban labour market (e.g. from communities within Richmond County, Pomquet-Tracadie, Southern Egmont and Port au Port) traditional linkages in the community were weakened. Friendships and social relationships could be established among fellow workers elsewhere. Also, if people were willing to travel greater distances to work, it was considered probable that they would travel similar distances to obtain shopping or recreational facilities that offered greater variety than could be obtained in the local centres.

Several of the Francophone communities were close enough to urban centres so that flight from high-cost housing and land within the growth centre(s), would further alter the French/English mother-tongue ratio in the future (e.g. in Richmond County, Nova Scotia, and in southern Prince County, Prince Edward Island). For those who chose to stay in the Atlantic region but moved into the largest urban centres, their chances of retaining their mother tongue as the language-of-the-home were weak. Halifax/Dartmouth, for

example, had the highest growth rate of French mothertongue population for incorporated centres over 5,000 in
the Atlantic provinces outside the province of New Brunswick. Of this mother-tongue population within the census
metropolitan area of Halifax, only 39% reported that they
used French most often in the home. Just over half of
these people were between 20 and 44 years of age, that
segment that probably contained the greatest proportion
of new arrivals from the rural communities.

Chapter VI

TABULATIONS OF LANGUAGE DATA

The problem of reliability in the measurement of language retention, language transfer, or language substitution was recurrent and vexing. Frequently data were unreliable because the size of a population was too small at a particular scale of analysis. A smaller scale could have been utilized but because of the practice of rounding language-related data, the accuracy of figures for total and constituent populations became questionable. This procedure was used to maintain confidentiality for the protection of the privacy of individual respondents. The Statistics Act stated that no employee of Statistics Canada,

... shall disclose or knowingly cause to be disclosed by any means, any information obtained under this Act in such a manner that it is possible from such disclosure to relate the particulars obtained to any individual person, business or organization.1

Statistics Canada had developed data storage and retrieval systems that required a procedure known as "Random Rounding" in order to comply with the above regulation. The random rounding was on a base 5, hence all figures that were contained in tabulations or publications were multiples of 5, that is, the unit digit was either '0' or '5'². Whether the last number was rounded up or down was determined by chance and not by any rules that were based upon the value of a number. It was claimed that while there was distortion of

^{1.} Statistics Act, Section 16 (1) (b), 1971.

^{2.} Statistics Canada, Census Division, "Census Data News", Vol. 1, no. 4 (1972), Ottawa.

constituent parts (i.e. "cells") of a population, those parts did not lose their statistical value and aggregations could "... be used with confidence" 3.

Another situation that increased the probability of error or distortion in tabulations was the inclusion of language-related questions on the one-third sample of the census. Weighting procedures were applied to the results of the sample, known as the Raking Ratio Estimation Procedure, and were designed to ensure that sample estimates agreed with population totals⁴. All tabulations that were requested from Statistics Canada that used data relating to several language-related questions were constructed from the one-third sample. It was assumed that the weighting procedures had provided sufficient accuracy to justify statements that were made on the outcome of various calculations and cross-tabulations. Whenever data were required on mother-tongue populations alone, however, they were obtained from the total population figures.

It was not the purpose of this section of the reference supplement to discuss the reliability of language data but simply to provide some additional information to illustrate the difficulties encountered when measurements were applied to language data⁵.

^{3.} Ibid.

^{4.} Statistics Canada, "Dictionary of the 1971 Census Terms", catalogue 12-540, Ottawa. See also, Brackstone, G.J., "The 1971 Census Weighting Procedures", Population and Housing Research Memorandum, PH-Gen.-9, Statistics Canada, Census Division, Ottawa.

^{5.} See, Brackstone, G.J., "The Reliability of the 1971 Census Data", October, 1974. This paper is to be published in a volume edited by Professor Paul Lamy, Department of Sociology, University of Ottawa, in 1975.

During the investigations of the minority communities across Canada various devices, described in the preceding chapters, were used to extract as much information as possible about the trends within these minority groups. calculations that were most revealing on the question of language maintenance were the ratios of language-of-the-home to mother-tongue populations and the indices of language intensity, calculated from the official language population - English only or French only - related to the English or French language-of-the-home populations, respectively. The construction of age group pyramids provided information on the composition of individual language populations relative to the total population for any region. The semi-logarithmic graphs were useful devices to assess the rates of change between the mother-tongue populations from 1941 to 1971 for various provinces, census divisions, and cities. This information when analyzed through the context of the actual distribution of permanently inhabited areas of the country (ecumene maps) provided rather thorough material on the language zones of Canada. In some ways the analysis was lacking in academic rigour. What was required was to provide some insight into the processes and patterns that were operative within the language zones. The members of the Bilingual Districts Advisory Board were geographical laymen despite their eminence in other fields. It was essential to communicate information that would facilitate decision-making and not confuse the issue by employing techniques of spatial analysis that would be meaningful to researchers alone.

In addition to some of the limitations outlined above we encountered the problem of time scales. Over the years data were collected and published at various scales and it became impossible to compare certain geostatistical units beyond a thirty-year period or beyond two or three generations. One method of extending this time scale and using

the excellent facilities of Statistics Canada to cross-tabulate language-related data was devised by Dr. William Mackey, a member of the Bilingual Districts Advisory Board and research professor at the International Centre for Research on Bilingualism, Laval University 6.

The application of a language-loss tabulation to minority communities was designed to obtain estimates of a positive correlation between the language-related questions of ethnic origin, mother tongue, language of the home and official language(s). Such a cross-tabulation employed first-order data, that is, figures directly related to answers to census questions and provided a measure of language trends since it employed all four language-related questions. The device could have been applied at scales that varied from the province through census divisions and subdivisions if the population totals were sufficiently large to retain reliability. For example, many cities would have qualified for the application of this technique. It could also have been applied to the language zones or portions thereof. The time scale was extended since the ethnic-origin data became the base to which all other language data were related. It is essential to recall at this point that in interpreting this question the respondent was instructed to use language as a criterion,

Use as a guide if applicable in your case:

1. The language you spoke on first coming
to this continent, if you were born outside.

2. If born in Canada, the language spoken
on the male side when he came here.7

^{6.} Mackey, W.F., "Suggestions for Using Language-Related Census Data", presented to the Bilingual Districts Advisory Board, October 27, 1972, Ottawa.

^{7.} Statistics Canada, Instruction Booklet, 1971, Census of Canada, Ottawa, (D.B.S.), 25.2.1, p. 11.

TABLEAU 37

DEGREES OF LANGUAGE LOSS BY AGE GROUPS DEGRES DE DEPERDITION DE LA LANGUE PAR GROUPES D'AGE

1.1 French/Français

Q.15	Q.5		Q.18	D		0 5/3			
EO AS	MT LM	LU	OL LO	Degree Degré	0-20	Aq 21-40		60+	% of/du total
F*	F	F	F	0	olo	ક	90	8	96
F*	F	F	В	1	96	90	%	90	%
F*	F	E/A	В	2	P	%	%	8	%
F*	F	E/A	E/A	3	90	90	90	8	26
F	E/A	E/A	E/A	4	010	90	90	90	96
	tal pop				olo	90	96	લ	%

1.2 English/Anglais

E/A**	E/A	E/A	E/A	0	96	%	90	8	%
E/A**	E/A	E/A	В	1	96	90	8	90	જ
E/A**	E/A	F	В	2	8	%	90	90	010
E/A**	E/A	F	F	3	00	90	g	90	90
E/A	F	F	F	4	0,0	ક	96	8	0,0
% total % pop.			r,		90	8	90	00	00

- * including native-born Canadians of other ethnic origin having French Mother Tongue comprend les autochtones d'autres origines ethniques de langue maternelle française
- ** including native-born Canadians of other ethnic origin having English Mother Tongue comprend les autochtones d'autres origines ethniques de langue maternelle anglaise

SIGLA/SIGLES

F	(French/Français)
E/A	(English/Anglais)
В	(English and French/ Anglais et Français)

Q. (Census Question Number/ Numéro de la question de recensement) Q. 5: MT (Mother tongue)
LM (Langue maternelle)

Q. 6: Date of Birth/
Date de naissance

Q.15: EO (Ethnic origin)
OE (Origine ethnique)

Q.18: OL (Official language) LO (Langue officielle)



It was decided that the significance of the tabulations would attain maximum impact if presented in easily-understood graphic form. Hence, by plotting the results of a tabulation in the form of a histogram, one was provided with a graphic impact of the "trending" of a minority language group. If the language maintenance was strong, there would be a high frequency of respondents in degrees '0' and '1' (table 37). If, over time, there had been a movement among a minority population away from the retention of its mother tongue, frequency distributions would be low in degree '0' and high in degrees '2', '3', and '4' (table 37) and this trend was well illustrated by the histogram (fig. 34).

To demonstrate the potential significance of the language-loss tabulation and the problems encountered in its application we selected two samples. One tabulation was applied to a part of the French language zone and the northern portion of the bilingual zone in New Brunswick—the counties of Madawaska, Restigouche and Gloucester—and another to a language island, the district of Egmont, as recommended by the Bilingual Districts Advisory Board.

The county of Madawaska, on the periphery of the French language zone, exhibited the intensity of the French language in the tabulation of language-loss. All but 1% of the population of French ethnic origin fell within degrees '0' or 'l' indicating that the only trend away from unilingual French was the belief by 36% of this population that they were sufficiently competent in the second official language to carry on a conversation, i.e., bilingual (table 38). Although the numbers became rather small in degrees 'l' and '2' for the tabulations on the people of British ethnic origin and English home language, a small proportion of this population had become bilingual or were using French as the language of the home.

Rather surprisingly over half of this population had remained unilingual English over the generations since their first male ancestor arrived in Canada. This concurred with the pattern that was encountered earlier when calculations of English home language to English mother-tongue populations for Madawaska revealed that close to 100% used English in the home. The language intensity index for this minority group was .50 in a county that was strongly Francophone.

For the population of French ethnic origin in Restigouche County a greater proportion were in degrees 'l' and '2' than was found in Madawaska (table 39). There was a substantial shift of people from degree '0' to degree 'l' when we moved from the 0-20 cohort into the 21-40 age group. That is, as the Francophone population of Restigouche approached the "age of maturity" the majority were becoming bilingual rather than remaining unilingual French. On the other hand the people of British ethnic origin remained unilingual English to a very high degree. Only 14% had become bilingual while retaining English as the language of the home. Proportionately, more people of French ethnic origin have shifted into degrees 'l' and '2' than have those of British ethnic origin.

In Gloucester County the patterns were similar to those of Restigouche, particularly for people of British ethnic origin, although the strength of the French language over time was more pronounced here than in Restigouche.

Certainly a reason for the retention of the proportion in degrees '0' and '1' must be associated with the peninsular concentrations of the Francophones in this county as discussed above. The percentage of the French ethnic population that had been totally assimilated, that is, people classified in degree '4' of the language-loss tabulation, was less than half that for Restigouche County. In the higher degrees for

TABLE 38
LANGUAGE LOSS BY AGE GROUPS,
1971 CENSUS

TABLEAU 38 DEPERDITION DE LA LANGUE PAR GROUPES D'AGE, RECENSEMENT DE 1971

bilingua.		O. pop.	% bo		0.20						87.2 3.4					
glais		dearees	0 10	(32,600						1.190					
E/A: ang	u	tal pulatio	od &	59,1	34.2	0.8	1	0.2	94.3		2.2	1.2	0.2	1	0.3	3.9
I.S.		O POP.		62.7	36.3	0.8		0.2			56.4	30 . 8	5.5		7.3	
frança			total	20,650	11,950	275	ı	09	32,935		770	420	7.5	1	100	1,365
0	1	qedre qedre	np Jo	10.6	8.0	16.4	ŀ	1	8.		13.6	11.9	13.3	ı	15.0	13.2
fficiell			61+ Yrs	2,180	066	45	1	ı	3,215		105	50	10	1	15	180
ngue o			np Jo	16.0	20.7	25.5	1	8 . 3	17.7		18.8	31.0	40.0	ı	20.0	23.8
e LO: la			41-60yrs	3,300	2,470	7.0	1	5	5,845		145	130	3.0	ı	20	325
le d'usage		qedre qedree	15.2	35.2	36.4	1	25.0	22.6		26.0	17.9	20.0	1	10.0	22.0	
: lang			21-40 yrs	3,130	4,205	100	ı	15	7,450		200	75	15	-	10	300
le LU		qedre qedre	to å	58.3	35.9	20.0	1	75.0	49.9		40.9	40.5	33.3	-	65.0	42.1
maternell			0-20 yrs	12,040	4,290	55	1	45	16,430		315	170	25	-	65	575
langue	oss vite	ee of l	gedr	0	-	2	3	4	• 🖂		0	Н	2	3	4	• 0
LM: le			OI	ŢIJ	B	М	E/A	E/A) pop.		E/A	М	М	[Li	Ĺ	EO pop. pop. EO
	N	īΟ	HL	ы	Ĺij	E/A	E/A	E/A	to EO		E/A	E/A	[I4	Ĺτι	Ĺ	
ethnique	Z	4,93	MT	Ĺτι	ET-1	[II	ĹΤι	E/A	tio		E/A	E/A	E/A	E/A	H	Ratio to Fraction
1	County comté,	··	EO	ſΞ	[±,	[II	Ē4	Ĺ	R H	_	E/A	E/A	E/A	E/A	E/A	Rat
OE: origine	MADAWASKA	TOTAL POPULATION TOTALE					УИ С							ACFI		

TABLE 39
LANGUAGE LOSS BY AGE GROUPS, 1971 CENSUS

TABLEAU 39 DEPERDITION DE LA LANGUE PAR GROUPES D'AGE, RECENSEMENT DE 1971 Bilingual bilingue .. M English anglais E/A: French français ** [<u>T</u>] Official language langue officielle OL: Home language langue d'usage HL: LU: tongue maternelle Mother langue MT: Ethnic origin origine ethnique EO:

totale 54.6 % nobulation Total 86.7 pop. O.E. E.O. pop. degrees degrés 0 + 1 22,455 totale 4.0 4.4 25.7 % nopulation 28 Total 40.9 7.0 6.3 E.O. pop. 1,630 10,590 1,800 11,865 10.4 12.9 5.9 du degré g of degree 1,100 yrs 755 95 +19 10.8 20.1 31.9 80.0 du degré % of degree 1,285 2,130 520 160 41-60 1 15.9 ∞ 33.4 21.7 du degré 32.8 of degree yrs 3,475 390 1,890 -40 1 6.99 36.7 .2 du degré of degree 22. 64 Yrs 7,935 360 3,885 1,155 1 -20 degré de perte 2 gedree of loss OL E/A A $[\Sigma_i]$ М \Box 田 County, N.B. comté, N.-B. E/A HL Ø Y. [T Γ_{-1} 田 41,160 E/A MT [II] [2] Eu $[\underline{r}_{ij}$ [_ [z. E TOTAL POPULATION: TOTALE RESTIGOUCHE FRANCAIS **E***E***EEI**CH

		12,743 30.00 31.3				
62.9	∞.	4.7	0.4	P I	0.3	32.1
	11,015 83.4	1,930 14.6	155 1.2	1	115 0.9	
2,160 8.3 25,885	1,335 12.1 11,015 83.4 26	165 8.5	20 12.9	l	10 6.5	1,530 11.6 13,215
15.8	19.8	21.2	19.4	1	3.2	19.9
4,095	2,180	410	30	1	2	2,625
24.3	20.4	30.8	35.5	ı	22.6	22.2
6,300	2,250	595	5.5	l	35	2,935
51.5	47.7	39.1	50 32.3	-	41.9	46.3
13,335	5,250	755	50	ŀ	65	6,210 46.3
· ·	0	-	2	3	4	· ·
pop pp. 0	E/A	m	М	Ĩ-	[H	EO pop.
Ratio to EO pop. Fraction pop. OE	E/A E/A E/A E/A	E/A E/A E/A	ĹΉ	댄	۲ı	to E
tio	E/A	E/A	E/A E/A	E/A E/A	<u></u>	Ratio to Fraction
RA Y	E/A	E/A	E/A	E/A	E/A	Ra
				ACFY		

LANGUAGE LOSS BY AGE GROUPS, 1971 CENSUS TABLE 40

DEPERDITION DE LA LANGUE PAR GROUPES D'AGE, RECENSEMENT DE 1971 TABLEAU 40

lingual lingue		al ulation	Tot		6 79.3						3 12.6				
is E/A: English B: Bi		· O·E·	94.							95					
			degrees degrés 0 + 1		59,255						9,425				
		la ulation ale		53.6	25.7	2.6	1	2.0	83.9	10.7	2.0	0.2	1	0.4	13.2
		· Dob·	bob g	64.0	30.6	3.1	1	2.4		80.5	14.8	1.9	1	2.8	
French			tota1	40,080	19,175	1,930	ı	1,485	62,670	7,965	1,460	185	1	280	068'6
EO: Ethnic origin MT: Mother tongue HL: Home language OL: Official language F: OE: origine ethnique LM: langue maternelle LU: langue d'usage LO: langue officielle F:		qedre qedree	To &	7.8	11.4	8.5	1	3.7	80	٠ 9	9.6	16.2	ł	10.7	9.5
			60+ Yrs	3,125	2,190	165	ı	55	5,535	740	140	30		30	940
		qedre qedree	np Jo	12.1	21.4	19.9	ı	6.1	15.0	17.6	20.5	18.9	1	14.3	18.0
			41-60Yrs	4,850	4,105	385	1	06	9,430	1,405	300	35	ı	40	1,780
		qedre qedree	lo &	16.6	39.0	38.9	1	16.8	24.1	24.5	37.0	37.8	ı	16.1	26.3
			21-40Vrs	6,645	7,475	750	1	250	15,120	1,950	540	7.0	1	45	2,605
		qedre qedree	np %	63.5	28.2	32.4	ı	74.1	52.0	48.6	32.9	24.3	1	60.7	46.2
			0-20Vrs ans	25,455	5,400	725	1	1,100	32,580	3,870	480	45	ı	170	4,565
	loss	degree of loss			7	2	3	4	• [+]	0	7	2	3	4	• • •
	GLOUCESTER County, N.B. comté, NB.	NB 720	MT HL OL LM LU LO	ĹĽ	В	В	E/A	E/A	to EO pop. or pop.	E/A	В	М	ſщ	[t ₄	EO pop. pop. OE
				Ĺij	[i	E/A	E/A	E/A		E/A	E/A	Ĺ	Ţ	[I]	1
				Ĺij	ᅜ	Ĺ	Ĺτ	E/A		E/A	E/A	E/A	E/A	Ĺ	Ratio to Fraction
			OE OE	Įщ	屲	[II]	[Ti	Ĺ	Ratio	E/A	E/A	E/A	E/A	E/A	Rat
		0.0				ICH	SENC						NCF?		



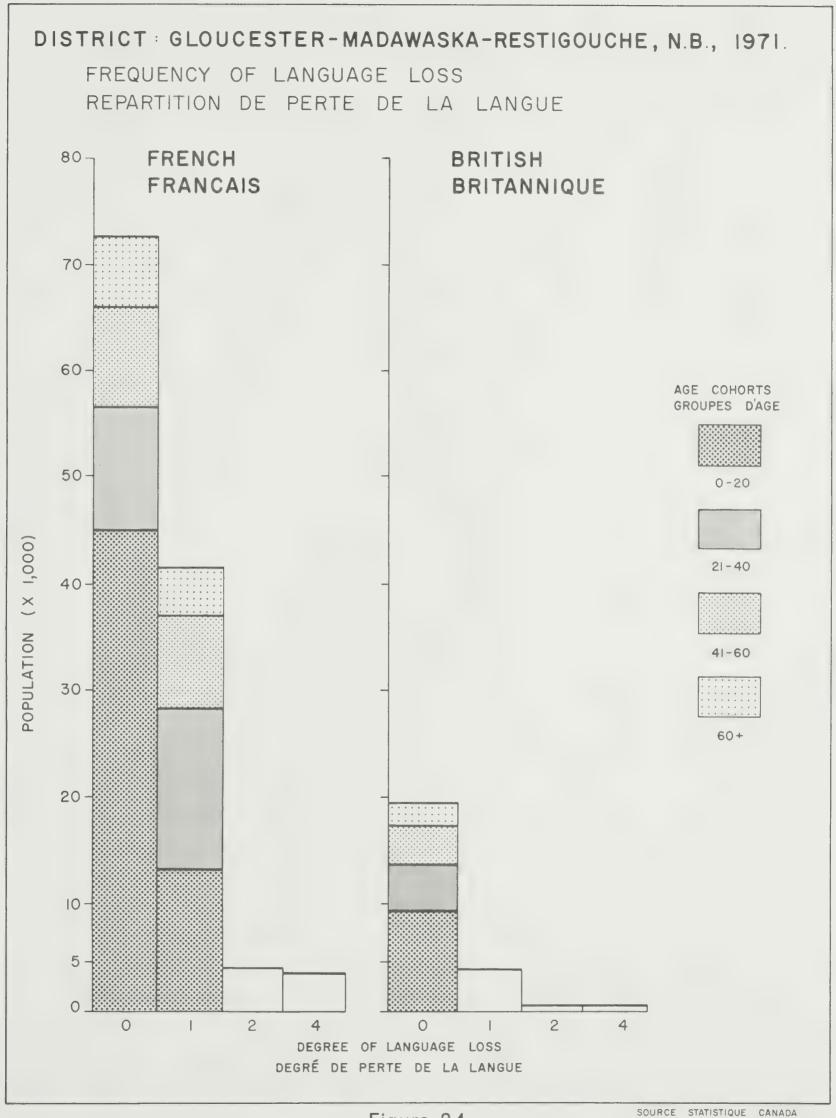
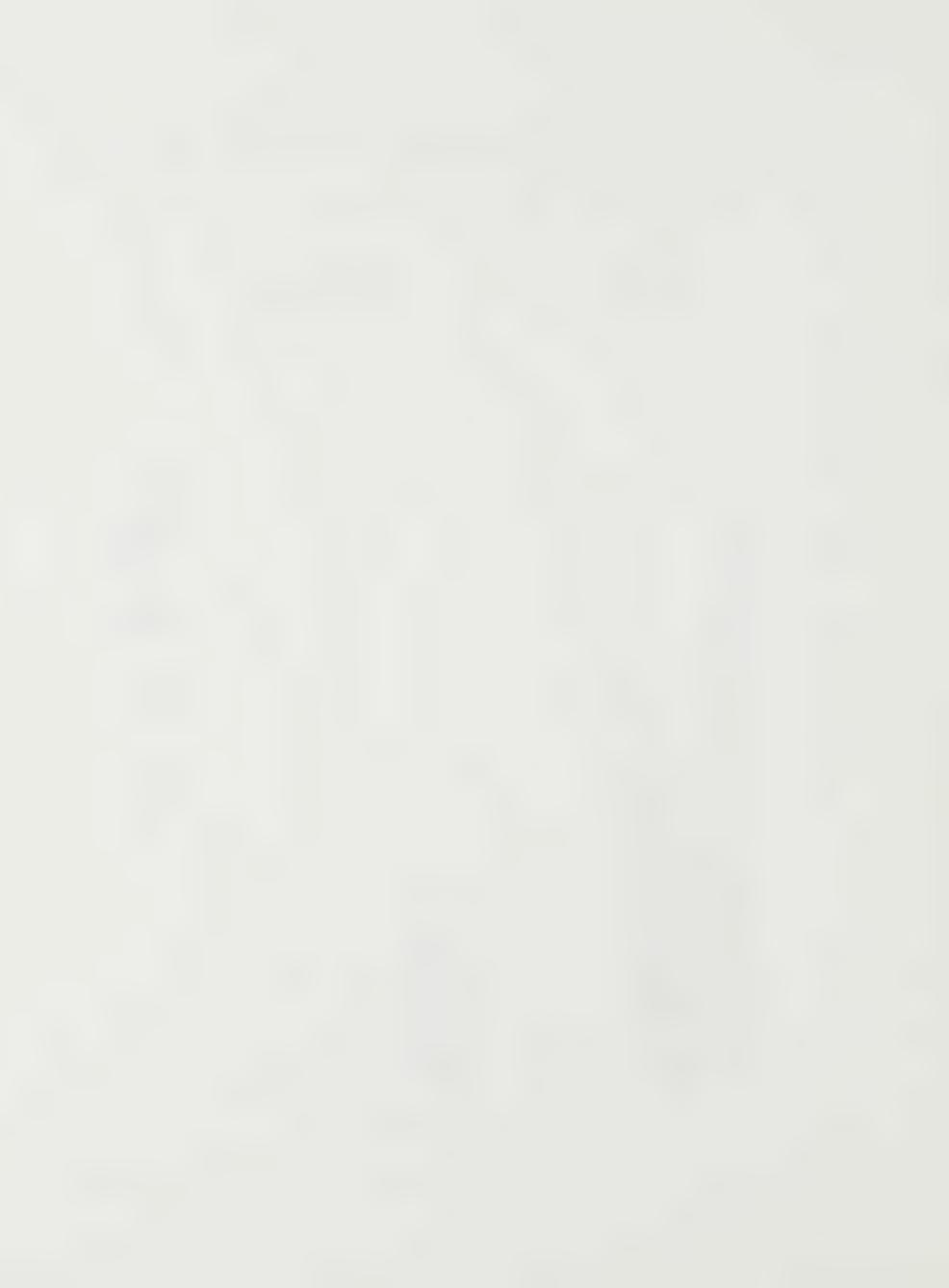


Figure 34



the people of British ethnic origin we encountered the problems of small numbers and the rounding of components to '0' or '5', hence the percentages were not as meaningful as in the lower degrees of language-loss (table 40).

As one moved away from the French language and bilingual zones, however, the tabulations in the upper degrees were sufficiently high to provide a meaningful trend. The district of Egmont, as recommended by the Bilingual Districts Advisory Board, had been classified as a language island and for the purpose of contrast the language-loss tabulation was applied here (table 41).

The population of British ethnic origin was entrenched, and had been for generations, almost entirely in degree '0' of language-loss. For the people of French ethnic origin the movement away from the language of the first male ancestor to arrive on this continent had been marked relative to those communities within the bilingual and French language zones. Just over 35% of this ethnic population had been assimilated over time and were ranked in degree '4'. Also the proportion of these people who were ranked in degree '2' was considerably higher than those in the same degree for the two counties of Gloucester and Restigouche in the bilingual zone. The difference in the deterioration of degree '0' between the 0-20 and 21-40 age groups was also very pronounced in the language island of Egmont relative to the counties of northern New Brunswick.

The data contained in the language-loss tabulations for the three counties of northern New Brunswick were combined to produce the histogram of the entire region (fig. 34). Though separate frequency diagrams could have been produced for the French language zone, for the bilingual zone, and for a language island, for brevity the counties of Gloucester,

Madawaska and Restigouche were combined. One histogram was provided for the district of Egmont.

Perhaps the first impression gained from figure 34 of the Gloucester-Madawaska-Restigouche histogram was the apparent strength of the unilingual French population, i.e. degree '0', relative to the other degrees for both ethnic groups. Similarly the youngest age group was well represented within this degree which offered some encouragement for future generations, particularly if these young people can be employed within the county.

Another feature of the population of the three-county area was the over-balance of the people of French ethnic origin within the bilingual portion of the total population.

When one considered the magnitude of degrees '0' and '1' for the Francophones, however, relatively few people had been assimilated into the second official language population.

The proportion of Anglophones in northern New Brunswick who were classified as bilingual was probably accurate for reasons previously given and because of the strength of the French language in the region and the resultant opportunities for usage by both groups.

The histogram illustrating the language-loss tabulation for the language island of Egmont in Prince County was impressive as it portrayed the magnitude of the English language as a force of attraction upon the minority population (fig. 35). The frequency of degrees 'l' through '4' relative to degree '0' for this minority group demonstrated clearly the trend over time that had been operative among the people of French ethnic origin. Although the proportions of this population were fairly even in degrees 'l' and '4, the latter had a greater frequency of respondents in the youngest age groups, a further indication of the force of attraction of the dominant language community.

TABLE 41
LANGUAGE LOSS BY AGE GROUPS,
1971 CENSUS

TABLEAU 41
DEPERDITION DE LA LANGUE PAR GROUPES D'AGE,
RECENSEMENT DE 1971

ingual		ulation	Tot:		11.6							70.5				
EO: Ethnic origin MT: Mother tongue HL: Home language OL: Official language F: French E/A: English Bili OE: origine ethnique LM: langue maternelle LU: langue d'usage LO: langue officielle F: français E/A: anglais B: bili		· 0°E	bob E°0		44.2							6.66				
			degrees degrés 0 + 1		3,815							23,140				
		noitalu	Tot god %	1.9	9.7	5.4	1	9.2	26.3		69.5	1.0	0.0	1	0.1	70.5
		· 0°E°	bob E°O	7.1	37.1	20.7	1	35.1			98.5	1.4	0.0	1	0.1	
		615	3,200	1,785	1	3,030	8,630		22,815	325	10	1	20	23,170		
	gn degree			5.7	19.8	16.5	1	4.5	12.7		11.8	13.8	ı	ı	ı	11.8
			60+ Yrs ans	33	635	295	8	135	1,100		2,695	45		ı	. 1	2,740
	g of degree			m	19.1	24.4	1	10.2	15.9		17.2	12.3	ı	ı	ı	17.2
		41-60 ^{yrs}	20	610	435	l	310	1,375		3,935	40	1	I	ŀ	3,975	
	21-40Vrs od			4.1	22.8	25.2	1	21.8	21.6		24.3	46.2	50.0	1	ı	24.6
				25	730	450	t	099	1,865		5,535	150	2	-	1	2,690
	gn gedree			87.8	38.4	34.2	1	63.5	49.9		46.7	26.2	50.0	1	75.0	46.4
			0-20 ÿrs ans	540	1,230	019	ı	1,925	4,305		10,650	8 2	5	ı	15	10,755
	gedré de perte degree of loss			0	1	2	m	4	• [2]		0	٦	2	m	4	
	.ct", P.E.I.	32,845	OI	Ĺĭų	m	М	E/A	E/A	000 0		E/A	m	В	Γų	Ľ.,	pop.
			HIL	Ĺij	[ī4	E/A	E/A	E/A	Ratio to EO Fraction pop		E/A	E/A	[II	[i	[1]	to EO I
			MT	[H	[ii]	Ĺij	[Ti	E/A			E/A	E/A	F	· H		
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	EGMONT "Di	H		FRENCH							ENGLISH					



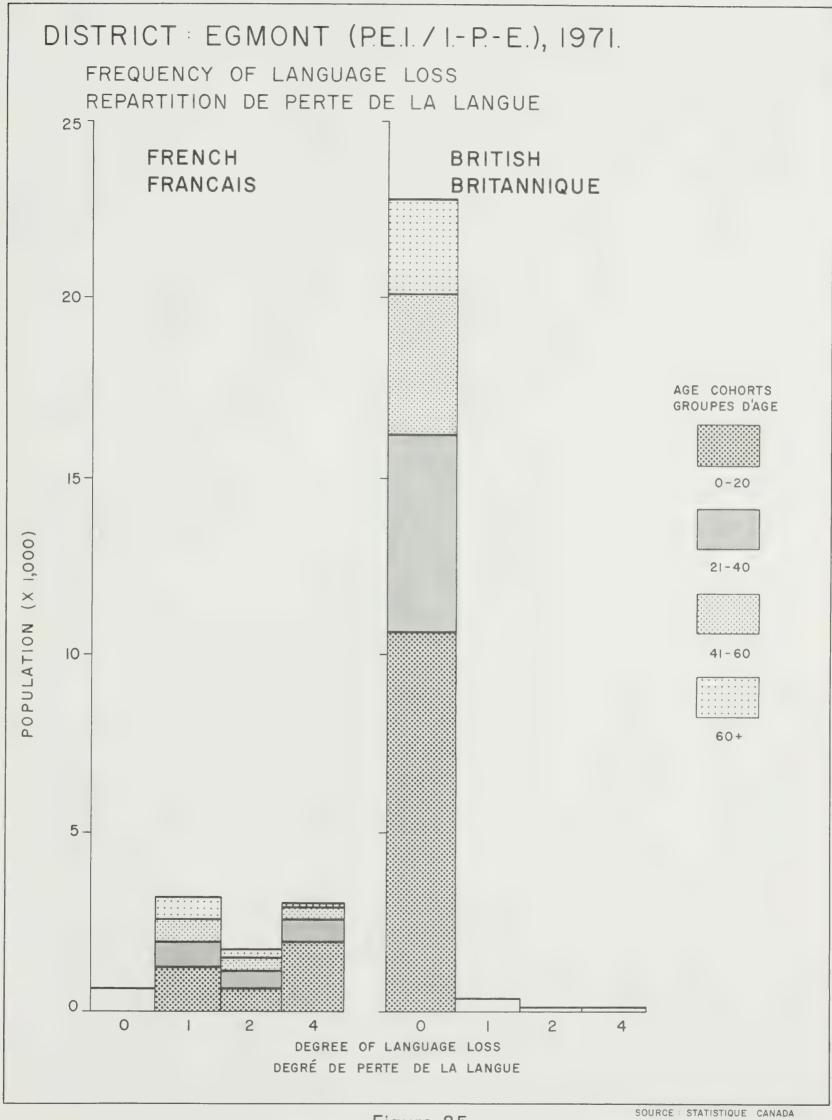
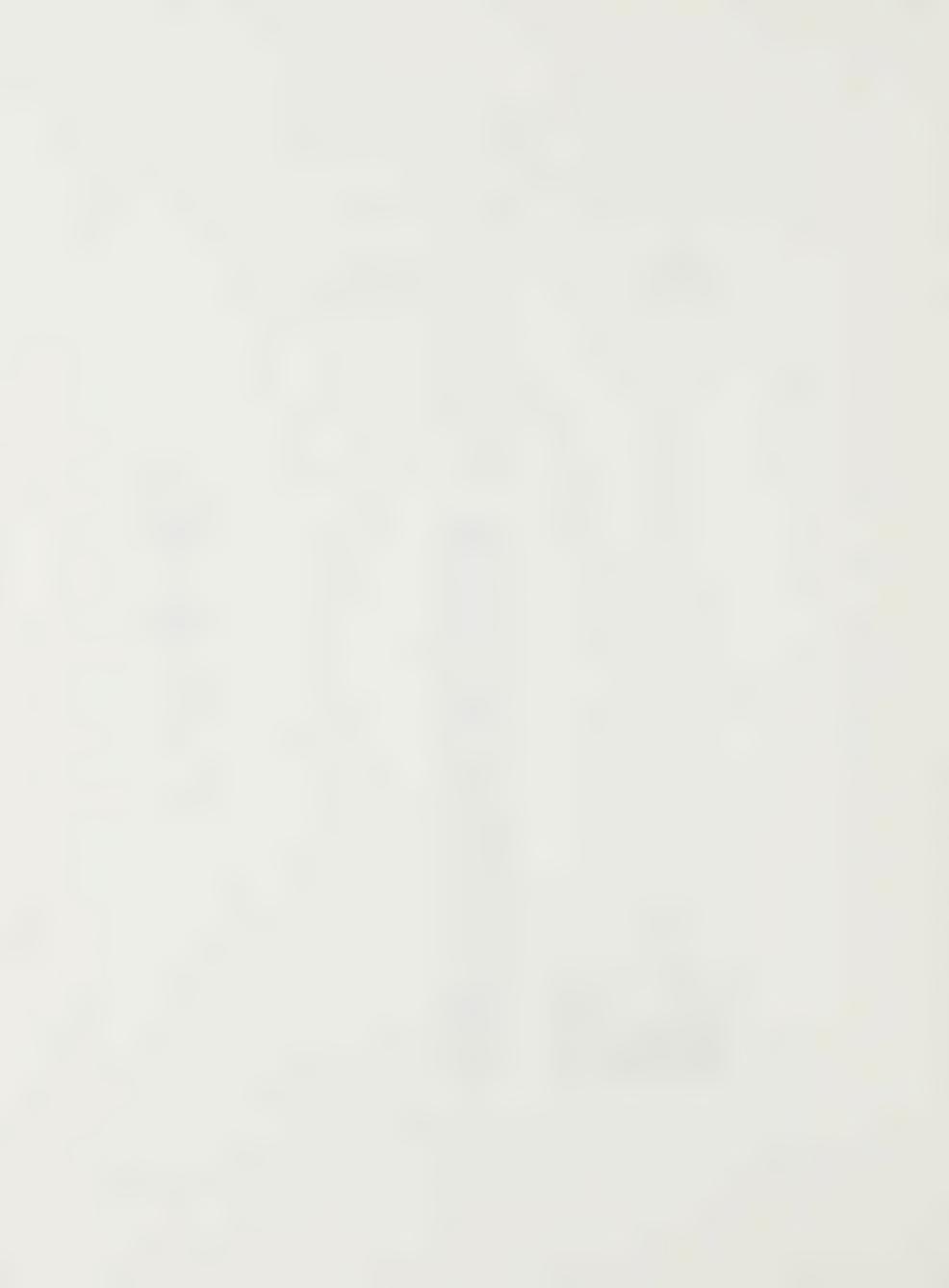


Figure 35



Reference to the tables of language loss for all four areas will demonstrate the restrictions on the application of this technique that were encountered. Because of the editing procedures of Statistics Canada, no respondents were recorded in degree '3', hence degree '2' was over-represented throughout, particularly in the language islands. Since rounding was applied to the components of each degree, the low frequency tabulations were unreliable. The value of this measurement of language loss among minority communities will be greater if the data used in cross-tabulations in unedited and is truly first-order, that is, it can be obtained before the application of random rounding.

Statistics Canada has obtained some excellent data relating to language communities in Canada. Their capabilities for manipulating this data and presenting the results in graphic and tabular form are among the finest in the world; moreover they are constantly being improved. Miscalculations in the storage and retrieval of the data are normal when computer techniques are being applied for the first time and when attempts are being made to estimate the multitude of requests that will be submitted for the manipulation of this data. Without the capable and imaginative work of the personnel of Statistics Canada the variety of requests submitted by this Board and by independent researchers could not have been fulfilled.

It is to be hoped that some of the techniques described in this reference supplement will be of value to the members of the third Bilingual Districts Advisory Board, to be assembled in 1981, in their research into the changes in language communities throughout Canada. The tabulations on ratios of home language to mother-tongue populations, indices of language intensity applied through the concept of language

zones in Canada, and cross-tabulation of language loss as devised by Dr. William Mackey should provide useful additives to the straight-forward calculations on mother-tongue populations for the provinces.

Chapter VII

SUMMARY AND CONCLUSIONS

Summary

The application of an analysis of language data in a context of language zones in Canada has facilitated a comparison of trends among the zones and has provided some understanding of variations that occurred within these zones. Economic, political and social variables that produced alterations within language communities, regardless of their source were not entirely bound by jurisdictional boundaries but diffused throughout the nation.

The French language zone was designated as such because of the strength of the home-language population relative to the total population and because of the pervasion of the language throughout the community as indicated by the indices of language intensity. In his research into language transfer in Canada, Kralt stressed that the retention rate of French within Quebec has been as strong as the rate of retention of English in those regions designated in this volume as English language zones¹. Another feature of the French language zone in Canada as analyzed by Kralt was the transfer to English and French by people of non-official (i.e. "other") mother tongues. Although many of the non-official language groups retained their mother tongue as the language of the home in Quebec, two ethnic groups, the Italian and the Portuguese, had language transfer to French in

^{1.} Kralt, J. (1974), op. cit.

greater proportion than to English. The Italians comprised more than 36% of the non-official mother-tongue population in Quebec².

In a recent investigation into the growth of the unilingual French population of Quebec, Roberge demonstrated that the ratio of this official-language population to the total population of the province had been strengthening over the years. This reinforcement also occurred in the census metropolitan area of Montreal although, as expected, at a lower over-all proportion than in urban areas within the French language zone³. Hence, there appeared to be a number of factors that substantiated the concept of language zones in Canada and the impression that in one of these zones, the French language still exhibited a considerable amount of vitality.

Of concern to the legislators of Quebec may have been the growth of the provincial population in the vicinity of the Montreal census metropolitan area. The ecumene map of Quebec revealed that there were geographic limitations upon centres of growth within the province but Montreal, as the primate city, had several advantages — geographic, economic and social — that gave it a considerable lead over other regions in Quebec. Part of its inertia was due to the fact that this census metropolitan area contained more than 45% of the entire population of the province in 1971. However, Montreal, situated at the edge of the French language zone of Quebec, was actually a part of the bilingual zone of Canada and its location made it vulnerable to the penetration of the English language. Furthermore, some census

^{2.} Ibid.

^{3.} Roberge, P. "Loin d'augmenter, la prédominance de l'anglais n'a cessé de régresser dans le Québec urbain", Le Devoir, lundi, 16 décembre, 1974.

divisions, particularly those to the southeast of the city, had experienced an increase in the ratio of English to French over the past twenty years. While there were signs of linguistic strength within the French language zone, and some evidence of growth of this zone at the expense of the bilingual zone, it was for the region of Montreal that forecasts were difficult to make. Similar impressions may have been influential in the promulgation of language legislation in that province.

The bilingual zone of Canada as the frontier of contact and occasionally conflict between the two official lanquage populations contained some of the characteristics of the two zones that it separated. Since it was not a contiguous zone of bilingual population but was fragmented, it appeared to be experiencing encroachment by portions of both the French and the English language zones. This erosion was particularly active along the "edges" of the zone where language transfer, loss of population, the influx of people of the majority language population or a combination of all of these created a shift in the balance of the language populations. Much of the conflict in the past over minority language services and education had taken place along the margins of the bilingual zone - Moncton, St-Léonard, Cornwall, and Elliot Lake. The index of language intensity for these particular urban places conveyed the difficulty that people of the minority language encountered in using their mother tongue beyond the home.

In spite of the occasional problem centre, one feature of the bilingual zone that was notably absent within the language islands was the presence of important service centres that had a relatively strong proportion of people of the minority mother tongue. In general a high proportion of this mother-tongue population continued to use its language

in the home. Hence, these urban communities had the greatest potential for bilingual services in the country — services that could be used by both the urban and the rural populations of the zone. A few of the service centres that were well within the bilingual zone had a higher proportion of Anglophones among the bilingual population than cities and towns that were along the edge of the zone or within the English language zone. This must be considered an important factor for the location of federal or provincial offices that are intended to serve the public in both languages. The characteristics of a potential labour supply must be known before decisions to expand or to relocate services are made.

The language islands were the small communities contained within the English language zones of the Atlantic provinces, southern Ontario and western Canada. Their situation was usually along the margins of the permanently inhabited areas of the English language zone (fig. 8). location had provided them some opportunity to retain a community identity and, hence, maintenance of their mother tongue, mostly through comprehension, (i.e. mother-tongue definition), but occasionally through seemingly strong language usage as well (Digby-Yarmouth, St. Boniface, etc.). On the other hand, interaction with people of the bilingual or French language zones had been difficult. As a result the essential ingredients of cultural rejuvenation were absent. These language islands suffered, generally, from a declining ratio of mother tongue to total population and a loss of young people to neighbouring urban centres that were strongly Anglophone. As a result of the latter factor, birth rates appeared to be waning among the minority population. Low indices of language intensity were indicators of the penetration of the majority language into these communities — a penetration that appeared to be unrelenting and perhaps unpropitious.

Programmes that were designed to stimulate the economy of a region in which a language island was located often functioned as an accelerator upon the forces that were eroding a minority language. Plant and office managers of the industries that were encouraged to locate were usually unilingual English. As a matter of efficiency they expected the plant to operate in the dominant language of the region. Hence, if jobs were created for the local population they were the type that were simply extensions of the parent-plant operation. When efficiency in production was a major concern for the branch-plant, cultural characteristics of a minority within the labour force were usually overlooked.

Conclusions

Restrictions of time and space have not permitted an application of the analysis of language islands in southern Ontario, Quebec, and western Canada, in a manner similar to that of the Atlantic provinces. It seemed reasonable to assume that these language enclaves also faced eroding forces that were reducing the usage of the minority language. The circumstances may vary over time but language loss appeared to be a characteristic that was common among all the language islands.

Research into the processes and patterns of language maintenance in the bilingual zone of Atlantic Canada has not been conducted to the same degree in Quebec and in eastern and northern Ontario in this reference supplement. In addition to the type of analysis that was completed for Atlantic Canada, there are other problems that should be investigated in the western portion of the bilingual zone. The provincial government of Ontario has designated eastern Ontario as a

region to receive industrial development. Should such a . policy succeed, what type of industry will be attracted into eastern Ontario and what impact will this have upon the cultural characteristics, strongly Francophone, of Russell and Prescott counties? Given that various industries will locate close to the new express highway that will reduce time/distance between the Ottawa-Montreal urban markets, will any consideration be given for French as the language of work, particularly in the smaller plants, or is it quixotic to even raise such a question? Will commuters from both Ottawa and Montreal take up land that is going out of farming in eastern Ontario and, if so, what will happen to the proportion between the official language populations and to the composition of each mother-tongue population? census metropolitan area of Montreal, the contiguous census divisions to the southeast, and the counties between Ottawa and Montreal are all linked by the processes of urbanization. Interdisciplinary investigations should be focused upon this portion of the bilingual zone to monitor changes in the English and French communities and to assess the impact of political, social and economic policies.

While the patterns of Francophone settlement in northern Ontario were presented in a rather cursory fashion, there was no opportunity to investigate, in detail, the processes that were operative in this western portion of the bilingual zone. How well will the economy of northern Ontario absorb the youthful segment of the labour force? Will there be a migration of young Francophones into southern cities where job opportunities are more plentiful and varied? Are there professionals who will move to Quebec so that they can function in their mother tongue beyond the home and, if so, what impact will this have upon people who have been accustomed to receiving personal services in their mother tongue? What portion of high-school and college graduates

are attracted away from northern Ontario? Is it the bright student, the one with leadership potential, who possesses the mobility and uses it or do these people recognize a preferable life-style within these northern communities and remain to take up positions that are available?

These are only a few of the questions that come to They accompany a desire to have the various measurements that have been discussed above applied to the other language zones in Canada. There is a need for on-going demographic and geolinguistic research throughout the language zones of Canada. The results of this research would be available to Bilingual District Advisory Boards that are to be assembled on the completion of each decennial census, to the office of the Commissioner of Official Languages, to private companies anxious to serve the public in the two official languages, and to the federal and provincial governments. In particular, the Boards would receive information that would assist in the formulation of their recommendations and their suggestions as to the manner in which article 9 (2) of the Official Languages Act, the "flexibility clause", could be applied. It is also probable that future Boards would be better equipped to comment upon article 15 (3) of the Act. To do so requires thorough understanding of the patterns of movement of people and ability to identify areas where it is feasible to recommend administrative changes in federal services. With the excellent facilities and spirit of cooperation that exist within Statistics Canada the knowledge to be gained on language trends in Canada is indeed exciting to contemplate.







